HUNTERS

BY

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M.R.C.V.S.


CONFIDO
IN
DOMINO
ROBERT SEDGWICK.
E.D. French fec.t 1896

JOHN A. SEAVERNS

HUNTERS

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Author of The Practice of Equine Medicine: the Stock-Owner's Manual: The Veterinary Manual for Horse-Owners: Our Friend the Horse: The Elements of the Practice of Comparative Medicine: Horses, Their Points and Management: Breaking and Training Horses: The Horse: The Groom's Guide: Horses, Their Selection and Purchase: Hints on Farm Live-Stock: Ponies and all about Them: Revising Editor of Nimrod's Condition of Hunters: Oliphant's Law of Horses: Contributor to the Encyclopædia of Modern Agriculture, and many other Works

WITH AN INTRODUCTION BY
C. W. MAUD

ILLUSTRATED FROM PHOTOGRAPHS BY
GILBERT W. PARSONS

LONDON
EVELEIGH NASH
FAWSIDE HOUSE
1910

TO MY FRIEND

J. FAIRFAX BLAKEBOROUGH

AUTHOR OF "ENGLAND'S

OLDEST HUNT"

PREFACE

CONSIDERING the large number of works in connection with horses, and the important position occupied by the hunter, it is somewhat surprising that up to the present time, so far as the author is aware, no writer has specially devoted his attention, excluding other varieties, to a description of the hunter, unless that of old-time literature, of which a great deal appeared on hunting matters, probably much more than at the present time. Other varieties of live-stock, from cattle down to poultry, have received recognition in monograph form, some pretentious, others less so, but none of them can claim a greater right to individual recognition than the subject of this treatise. As a commercial asset, the hunter ranks high, for the simple reason that its sphere of utility is linked with the most manly, as well as the most costly, form of field sports, namely, that of hunting the fox.

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INTRODUCTION

To those privileged to follow "The Sport of Kings," or perhaps, as a Veteran "Nimrod" of my acquaintance rightly termed it, "The Sport of all Sports," the sport for which England and Englishmen have become famous, all the world over.

From, if you like, "The Prehistoric Man," who hunted Salisbury Plain to when Charing Cross was the site of the Packs, whose "Gone Away!" resounded in Kensington Gardens—or the Duke of Wellington's Hunts, who hunted three days a week during the Peninsular Campaign (engagements permitting), turn where you will, and whatever portion of the globe an Englishman has set foot in, sure enough you will find a foxhound.

The Immortal Jorrocks, justly termed it, "No Sport like Unting," whether it be turning out "cubbing" on some dark September morn

or riding to the Spinny Meet in all the splendours of new "Pink."

To horse and rider alike, there is nothing so enjoyable as a good gallop in the early morning. Watch your mount as you jog along, observe him drinking in the fresh morning air as you cross some stubble field. The very birds welcoming you with their chirruping; before you the wooded hill-side, and as you ascend through their silhouetted forms, come the first rays of the rising sun to greet you. As you reach the top, turn in your saddle—look back—look down on the peaceful scene, the hedge-rows, as through no abstract forms, swaying in the purple shadow—and the little Hamlet ye have left, with the smoke of its chimneys rising up, as a new offering.

So drink it all in, and impart the spirit to your mount. Between horse and rider, there is some mysterious current, some circuit which conveys your feelings, and makes you both as one. The confidence you have, so has your equine friend.

Watch your hunter at the "draw." The pack have entered the wood, all is still, save

for some snapping twig, or the crack of the Master's thong. Hounds are at work; a stillness prevails. Hark! some veteran hound has given tongue. Observe your mount; ears pricked, nostrils twitching, all the weight on the fore-hand, and as you sit forward, fondly smoothing your charger's neck, the Hound music bursts forth, followed by "Tally-Ho," G-o-n-e A-w-a-y," ease your reins, and you are off in chase of "The right sort." Whether the Sport be good, bad or indifferent, much can be learned and observed.

The "Field" makes the man, the Sportsman. By the term Sportsman I imply the one who rides to hounds, and who holds Hunt traditions etiquette as sacred.

The present Field can be described of two Parties. (1) Riders to hounds, sportsmen who work in harmony and enjoy hound work, and who show their appreciation to their mounts, by easing them all they can. (2) Riders to ride, whose sole enjoyment consists of riding "hill for heather," either over or through country, frequently the latter, little caring for mounts, crops or any one else, and

who are the cause of much damage and annoyance to the sporting farmer, for being a keen lover of horse and hound, he generally resents these gentry strangers who neither value property or anything else, and much of the harmony of the working of the Hunt depends upon him. The sporting farmer, one of the right sort, you will generally find him "leading" a couple of "puppies" (hounds) "for T' Ound Show." When in the field you can always include him in the "Rum 'Uns" to follow, and "Bad Uns" to beat!

But to the sport and enjoyment of the chase —don't forget your friend, do your best for your equine companion, and it will do the same for you. "Save him" all you can, and at "the point" he will carry you well in the running.

At the end of the run, on your return, as you loosen the girth, take off your hat to him and praise the bridge that carries ye over.

CLIVE W. MAUD

CHAPTER I

THOUGHTS ON HUNTERS

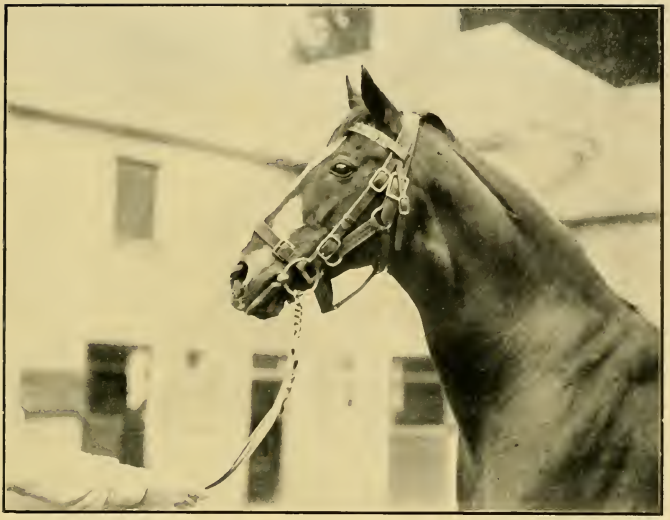
AN ANALYSIS OF WHAT A HUNTER SHOULD BE

Probably no man ever formed a more just estimate of what should constitute the qualifications of a hunter than the late Major Whyte Melville, when he wrote the following lines:

"A head like a snake, a skin like a mouse,
An eye like a woman's, bright, gentle, and brown,
With a back and loins, that would carry a house,
And quarters to lift him smack over a town."

Embodied in the preceding lines, will be found what may be termed, not inaptly, the essentials of a hunter, and this admirable summary of Whyte Melville's has been repeatedly recounted by sportsmen, in almost every part of the world.

It is a practical exposition, in verse, by one of the most practical hunting men, as well as that of a literary genius, that this country feels proud of having possessed. To begin at the beginning, most men will admit that the ideal hunter is one that is *born* a hunter, not made, but a natural inheritance, the outcome of selection. Geographical conditions, naturally, have an important bearing as to the suitability of a hunter; thus, for instance, in a grass country, with little or no arable land, the thoroughbred may be accounted as the best for such purposes, provided that the horsemanship is equal to the occasion. In counties where the land is of a converse description, a stouter built type of hunter is better adapted for the work, as every practical horseman is aware. Hunters, like every other variety of horse, are of variable temperament, but the possession of what may be termed a sweet temper, is one of the most valuable acquisitions that it can possess. Vice may be inherited, or acquired, frequently the latter as the outcome of bad treatment, and no animal makes a better attempt to repay, although such payment may be deferred, than the horse. Quiet in the stable,



HEAD OF "GALLINULE," SIRE OF "PRETTY POLLY"

A TYPICAL HUNTER, "THE JOKER"
Owner: H. C. WALTON, Crewe

and quiet to handle. Easy and steady to mount; free from nervousness; calm under excitement, yet keen to go, are, amongst other requisite attributes to which a hunter should respond. Cleverness is, to a large extent, dependent upon experience, associated with that of a good schoolmaster, and, given these conditions, plus that of parental inheritance (hunting abilities), one is bound to have a hunter of the *highest standard of excellence*. The skin covering the head, neck, body, and limbs, should be thin, and clothed with fine hair, as a thin skin and freedom from coarse hair are usually associated with good breeding. Those hunters that are of a sluggish or lymphatic temperament, have usually thick skins, and a good deal of packing or subcutaneous tissue beneath it, the presence of which favours swelling of the limbs, grease, and other troubles. The thinner the skin, the closer to bone, muscle, tendon, and ligament, and this alone gives a sharper anatomical configuration. It may seem rather ludicrous to compare the finely chiselled head of the Arabian with that of a light van horse, nevertheless, it serves to illustrate "breed qualities," there being portrayed

in the one, the highest degree of intelligence, in the other, everything that is dour or stupid. The lines of beauty in a hunter's head and face are found in its angularity, in which the various prominences of its component parts are distinctly visible beneath the thin skin. The erect ears with their thin cartilages, the neatly set on head, the full and keen expression of the eyes, the wide nostrils with their well-developed air chambers, and clean underline of the jaw, are, individually and collectively, points of beauty so much admired by the hunting man, or at any rate, by those who know what a hunter should be like. The carriage of the head is as important as its conformation, though it is not every one that appreciates the significance of good head carriage in a hunter, which, in the author's opinion, is capable of being classified as good, bad, or indifferent. Reviewing each of these in their respective orders it may be said that good head carriage comprises one that is not carried either too high or too low, but in such position as to give the animal a good balance in front, without boring upon the hands of the rider. When the head is carried too low, it predisposes

to stumbling, just as much as the high carriage favours blundering at fences, &c. A hunter that has a lofty carriage of head—popularly designated a star-gazer—is a most objectionable animal, for reasons obvious to almost every horseman. The conformation of the neck has a good deal to do with the set on of the head, as well as its carriage. Two forms of neck are an abomination, namely, the ewe neck and the wry neck, both terms being expressive of the shape. In the former, the "crest" is concave, whereas in the latter it is unduly convex. One does not want a hunter to have either a thick bull-like neck and heavy shoulders, nor yet one that is long and weedy, there being a happy medium, which a practised eye can at once detect. In turning one's attention to the shoulders and other portions of the fore-limbs, it is necessary to be critical, and where distinctions are fine, as in judging a large class of hunters, one must be hypercritical; such hypercriticism, however, must not be based upon faddism, but on deductions from comparison. Oblique shoulders, provided that they are well muscled, and of goodly length, are vastly superior to straight shoulders,

but in speaking of the shoulders, the arm is really included, although the latter extends to the elbow. A long shoulder favours length of stride, and freedom of action in this region is one of the most highly prized features that a hunter can possess. Springiness of action is, to a large extent, dependent upon freedom of shoulder movement. The fore-arm extends from the elbow-joint to the knee, and upon its strength, freedom of flexion, and extension of the parts below are, in a measure, dependent, so that, proportionate length, width, and thickness, are desirable features. Width and thickness add to the area for muscular attachment, and the more highly developed the muscles of the fore-arm, the better the anima for work. A practical horseman would call such fore-arms "powerful ones," and no horse is more in need of powerful fore-arms (excepting horses required for heavy haulage) than a hunter. Now, as to the knees; these in a horse required for jumping, must be broad in all proportions, and capable of executing the greatest range of movement. If the head of the cannon bone is broad, it will increase the articular area for the lower row of the bones of

the knee, and add strength where strength is most required. The square-shaped knee, sharply defined in its outline and clean at the back and the front, is the type that the author regards as the one best fitted to serve a hunter. It combines *durability* with *economy* of material, and is calculated to stand greater strain than any other form of knee. In the selection of a hunter it is customary to forcibly flex the knees, in order to ascertain whether there is perfect freedom of movement. In addition to the two main joints in the knee, there are other numerous small joints of a gliding nature, formed between the small bones of the knee, all of which play a significant part in the mechanism of this region. Both for appearance and utility, the cannon must be of proportionate length, wide in its articular areas, and when the hand is passed down it, impart the sensation of there being nothing but skin, bone, and tendon, in other words, "clean". The more bone in this region the better, and much the same remark applies to the pastern, the disposition of which must be neither upright nor yet too oblique. If a hunter's pasterns are too upright, they are, as a rule, in addition, too

short, and a short pastern renders a horse uncomfortable to ride, increases concussion, and acts prejudicially upon other parts of the limb. Most horsemen will be in unison with the author's thoughts upon this matter. On the other hand, if the pasterns are too oblique, they are generally too long, and deficient in bone. Admitting that they give a hunter a very elastic step, their over obliquity renders the leverage on the tendons too great, predisposing to premature "breakdown." What a hunter requires is, a pastern of medium length, broad in front, and deep from back to front, with articular areas of corresponding magnitude. Although the long pastern is a short bone, it is one upon which a tremendous amount of concussive force is thrown, as is proved by that not uncommon accident, "split pastern," the fragmentary breakage of which, under the simplest of circumstances, is of a most revelationary kind. One can easily conceive that a hunter wanting in bone and substance in any portion of its limbs, must necessarily be seriously handicapped, as the work that it has to perform entails violent muscular contraction, concussion, and the execution of most energetic movement,

all of which are centred upon the framework or skeleton of the animal. Therefore the larger the skeletal area, the better the animal will be fitted to do its work. In turning one's thoughts to the feet, the old maxim, "no foot, no horse," seems to confront us, probably because of its expressiveness. Some hunters have feet that are too small, others too large, whilst not a few have badly formed feet, or it may be, toes that turn inwards or outwards, neither of which directions are conducive towards good action, which like good manners, is a sine quâ non. The feet should be proportionate to the size of the animal, well opened at the heels, sound in the wall, concave in the sole, yield freely to the thumb when pressed at the lateral cartilages, have a well-developed foot-pad (frog) and the toes looking directly forwards. Some hunters have odd feet, one being slightly larger than the other. This may be either normal or abnormal, and the decision must be based upon circumstances. Turning one's thoughts to other parts of the hunter's anatomy, the withers, the back, the loins, the quarters, the brisket, the chest, the ribs, and the flank, are all worthy of consideration and reflection, though

it is only by comparison of one hunter with another, in other words, by objective lessons, that deductions, speculative or otherwise, can be made.

As to what sort of withers a hunter should have, one does not require them low nor yet high, but high withers will keep a saddle in a better position than low ones, yet there is a consensus of opinion, that the former give too much rigidity about the shoulders for real comfort in a saddle-hack. Again the withers may be too thick (coarse withers), or too thin (fine withers). Turning to the back, loins, and quarters, the highest degree of muscularity is that which is most befitting to a hunter, in fact, poor development in the regions named renders such an animal of comparatively little value. The capacity of the chest is mainly found in its depth, and the more room there is for the heart and lungs to have free play, so much the better. A sound clock (heart) and sound bellows (lungs) are the vitals of a hunter's existence, and upon them it has to depend, when called upon to respond to the highest degree of exertion. Various hunters examined by the author in the

exercise of his calling have been found deficient in wind, through weakness of heart, and there is no doubt that respiratory defects are frequently attributable to cardiac incompetency; at any rate, it is a suggestion worthy of thought, without being of dogmatic enunciation. The breast or brisket of medium width, is one that may be regarded as of the best conformation. If the ribs are broad and slightly flat, these features with that of length, will give the chest amplitude, without undue increase in its transverse diameter. Reverting to the quarters, these should possess a graceful slope, be free from angularity, and pass into heavily muscled first and second thighs. It gives a hunter a very ugly appearance when the croup slopes too much, and has another additional disadvantage, namely, that of bringing the hind limbs too much under the body. The first and second thighs are included within the regions extending from the hip joint to the stifle, and from the latter to the hock. Although the hinder portions of the body have a greater mass of muscle attached to them, they are less subject to trouble or disease than the fore-quarters. This is partly explicable on the

ground of being less exposed to the effects of concussion, and having to bear less of the general body weight. A thoughtful observer must have noticed that the relationship existing between the hind limbs and the body differs considerably amongst horses. In some instances, they are placed too far backwards, whereas in others they are too forward in position, thus disturbing the equilibrium of the body. Freedom of hock action, and ability to bring the haunches well under the body, during leaping, are of paramount importance, equally as much as the shoulders. Admitting that sharpness of outline, and "cleanness" of hock joint, are indicative of the better side of breeding, it does not necessarily follow that the hock, somewhat *coarse* in its conformation, is incapable of responding to such movements. It may be as good, or even better, so far as wear is concerned, than the hock of finer mould. Width in front of hock, as well as at the inner and outer sides; along with breadth at its junction with the cannon; neither too straight nor yet overbent; likewise freedom from disease, and well-placed in its relationship to the other hock, may be summed up,

in combination with freedom of action, as the desiderata of good hock conformation. As concluding thoughts of this chapter, the author wishes to emphasise the importance of cultivating the powers of observation when looking at a hunter. A collection of facts, thus established in one's mind, not only constitutes the best medium for making deductions, but acts as a guide for the instruction of others, to emulate which is one of the most valued possessions of mankind. The foregoing remarks are based upon practical knowledge, interlinked with a collection of facts extending over a number of years, and acquired by observation.

CHAPTER II

HUNTER BROOD MARES

THE breeding of hunters, if conducted upon proper lines, and in accordance with modern requirements, ought to become a fairly lucrative occupation, though, like many other ones, it is necessarily of a speculative kind. The selection of the brood mares constitutes the basis of such a speculative undertaking, and everything will depend upon the class of animal selected for the purpose. No difficulty would be experienced in obtaining brood mares of a class, but when it comes to finding the right stamp of animal, free from what are regarded as hereditary troubles, it is a slightly different matter. To begin with, those contemplating founding a stud of hunter brood mares must bear in mind that a brood mare requires the possession of three essentials, (*a*) bone, muscle,

HUNTER MARE, "LADYBIRD" (A WINNER AT THE ROYAL AND OTHER SHOWS)
Owner: F. B. WILKINSON, Esq.

and substance; (*b*) soundness in a relative sense; (*c*) freedom from vice. In making an analysis of the foregoing qualifications, the reader will have to exercise, during selection of the mares, a good deal of practical knowledge, in fact, this is absolutely necessary. Mares that are light in bone are very often weedy in other respects, and to breed weight-carrying hunters from such is an impossibility, more especially when thoroughbred sires are employed. To judge as to the amount of bone possessed, a practical horseman can tell at a glance, and he does so by referring to the cannon, also to the forearms and to the pasterns, but, as previously stated, his main guide is the cannon, and this is the situation to ascertain the amount of bone below the knee, transverse measurement being, of course, the one adopted. It is not necessary that a brood mare should have what are popularly termed the so-called "clean" legs, as age may to a large extent have obliterated this quality. The terms "muscle" and "substance" are used by horsemen to indicate a well-developed muscular system, compactness of form, combined with a *maximum* of vigour in all parts. Some hunters

are very weedy looking throughout their anatomy, or exactly the reverse of the foregoing.

Stress has been laid upon freedom from vice, as constituting an essential qualification in a hunter brood mare. On first thought, to some men, this statement will appear rather amusing, but a practical horseman knows well enough that he must be able to produce hunters of good temperament, and that, unless he starts with the right material to do so, it is almost like working against the inevitable. A vicious temperament is as assuredly transmitted from parent to progeny as any other trouble. The moral is, to buy mares with a good temper. The reader will in all probability ask what are the hereditary troubles that he must endeavour to avoid when purchasing the mares, the answer to which is, roaring, whistling, splint, bone-spavin, curb, ringbone, side-bone, thoroughpin, shivering, stringhalt, and above all, peculiarities of action, the latter being frequently associated with anomalies of conformation. Nearly all these defects (excepting roaring, whistling, and shivering) are patent, therefore, there can be very little excuse for any

man beginning breeding operations with troubles so commonly regarded as being capable of inheritance. Mares that are good jumpers themselves may, reasonably, be expected to produce offspring gifted with the same qualifications, much more so than in the case of brood mares having no such record. Considering the large number of brood mares that are registered by the Hunters' Improvement Society, there ought not to be much difficulty in obtaining the right type of animal, provided that a reasonable price will be paid. The question of price is an important one; nevertheless, it is impossible to lay down any rule as to what should or should not be paid, the reason of this being, that it is customary, not to relegate the animal to maternal duties, until such time as its sphere of utility, so far as work is concerned, practically ceases. To this rule there are some exceptions, but these are not numerous. Concerning the number of mares to be purchased, much will depend upon the facilities for grazing, housing, &c. To begin in a small way, half a dozen mares might be purchased, and roughly speaking, these will cost £200. The best time to

buy them is in the Spring of the year, say, March, so that the mares could be served in the same Spring. Early foals are an advantage, and when such can be 'produced, it is expedient to do so. During the first two months or so, both mare and foal, under favourable conditions, do very well in a roomy loose-box, in fact, very much better than out of doors, when the days and nights have not yet become warm. The general management of brood mares comprises grazing them on liberal pasturage, from early spring until October, when they should be brought up and housed in comfortable loose-boxes, preferably those in which they are intended to foal. During the time that they are in the house, a fairly liberal system of feeding should be followed, the forage to comprise crushed oats and bran, cut hay and straw, good sound hay, together with a few carrots or other roots, decreasing the bulky food as the period of gestation approaches its termination, the normal period of which is forty-eight weeks, but it must be borne in mind that normal foaling may occur a week prior, or subsequent to, the specified time. The moral to be drawn from

THOROUGHBRED MARE, "RYDAL MOUNT"

the latter is, to make all the necessary preparations for foaling, such as, proper attention to the cleanliness of the box; a deep bed of straw; and the selection of a careful attendant. The signs of approaching parturition are indicated by the relaxation of the ligaments of the hind-quarters (pelvic ligaments), so that the quarters begin to sink in, and milk secretion appears in the mammary gland, although the last named must not be accepted as positive evidence of a mare being in foal, as such commonly occurs in barren mares, at the full period of gestation. All in-foal mares should be exercised regularly, right up to the date of foaling, as this materially increases the functionary vigour of the animal, and facilitates an easier birth of the foal. The temperament of mares, at or about foaling time, varies considerably, some being vicious to their offspring and attendant, others quite the reverse. The foal, as a rule, begins to suck a few hours after birth, though some require a little tuition in this matter; therefore, it is necessary to exercise a certain amount of care, respecting the natural feeding of the foal. Again, some mares are very deficient in their

milk secretion; if so, the feeding of the foal must be supplemented by hand feeding, for which purpose cows' milk, diluted equally with water, and a little sugar added, is quite suitable. The best plan is to fix a teat on a bottle and feed the foal from this, special teats being sold for the purpose. Hand-reared foals are a good deal of trouble, but the death of a mare may necessitate the adoption of this plan; if so, the foal must be fed with a pint of milk and added water, not less than four times per day, for the first two or three months, by which time it will probably learn to pick a bit of grass or eat a few oats and bran, &c. It is customary to wean foals when they are about six months old, but if the foal is allowed to run with the mare, it will, insensibly, wean itself. Docking can be left until about weaning time, or it may be done when the foal is only a few weeks old, there being no objection to early docking. As soon as the mare has foaled, she must be treated most liberally as regards food, and allowed plenty of water to drink. Scalded oats, a little linseed cake, bran, bruised beans, together with either hay or green food should constitute the principal forage supplied. When

performed normally, labour in the mare is usually of a speedy character, so that if delayed, it may become expedient to have professional aid, delay under these circumstances being inadvisable. Delay in the delivery of a foal may arise from a variety of causes, into which it is not necessary to enter, it being sufficient to state that no interference should be permitted by amateurs, as irreparable damage may be done, exclusive of the danger of *septic infection* occurring through such interference. The principal diseases incidental to a mare at foaling time are: septic laminitis, metritis, and mammitis, whilst those affecting the foal are rheumatoid arthritis, diarrhœa, and the converse of the latter. Rheumatoid arthritis arises through absorption of septic material at the umbilicus, and occurs in some cases, when the umbilical cord has been tied off too closely, or septic material accidentally gained admission along the track of the cord. A dirty piece of string, or string that has not been previously sterilised by boiling, is capable of acting in the manner indicated; therefore, as a precautionary measure, due care should be exercised to sterilise the material employed for tying the cord, if such

be done. Rheumatoid arthritis in the foal is, unfortunately, of rather frequent occurrence, and, once it develops, usually proves fatal. It comes on without any preliminary warning, and the attendant is surprised on going into the loose-box, to find one or more joints swollen, hot, and exceedingly painful. It may be that both knee joints are implicated, the fetlock joint, the elbow, the shoulder, or the hock joints, there being no reservation on the part of the malady, to attack any particular joint or joints. The foal refuses to suck and it is, obviously, in a very critical condition. As previously pointed out, prevention is better than cure, which can, to a large extent, be done by dusting the umbilicus with some antiseptic powder, or liniment, daily, until the part has thoroughly healed. For this purpose, either of the following can be used:

Pulv. Boracic Acid	1 ounce
Pulv. Zinc Oxide	1 drachm
Pulv. Cinchona Bark	2 drachms
Oil of Eucalyptus	1 drachm
Powdered Starch	1 ounce

Mix, and apply twice a day by dusting sore.

If a liniment be preferred then use this recipe:

Pure Carbolic Acid	1 drachm
Oil of Eucalyptus	½ drachm
Glycerine added to make	4 ounces

Mix, and apply daily by means of a piece of cotton wool, or other material suitable for painting the wound.

Very little can be done once the disease is established, and veterinary surgeons usually regard the prognosis as a bad one. The other trouble affecting the foal, diarrhoea or scour, is a very common complaint, and a considerable proportion of foals are lost from it, chiefly through want of appropriate treatment. This also appears to be of a *specific* nature, but it is worse in some localities than others, being particularly prevalent amongst foals living on farms in fen land districts. The best treatment comprises a full dose of castor oil, say, two or three ounces, in conjunction with a drachm of laudanum; or chlorodyne in half-drachm doses. As soon as this has had sufficient time to act, follow it up with the mixture

in accordance with the prescription given below:

Bicarbonate of Potash	1 ounce
Bicarbonate of Soda	4 drachms
Compound Tincture of Cardamoms	2 ounces
Tincture of Catechu	1 ounce
Carbonate of Bismuth	1 ounce
Chloroform Water, added to make	10 ounces

Mix, and give one tablespoonful every six hours, until the foal is cured.

Another useful drug for this trouble is mercury and chalk, given in the form of *grey powder*, in doses of thirty grains daily, or twice daily, until a cure has been effected, but it is not a drug that ought to be continued with longer than two or three days under ordinary circumstances. One feature worthy of notice, in connection with this trouble, is that of not allowing the foal to suck the mare when she comes in overheated through exercise, her prolonged absence being usually followed by the foal sucking too freely, and her milk at such time is not in the best condition for assimilation.

THE THOROUGHBRED AS A HUNTER AND HUNTER SIRE

The value of the thoroughbred, as a hunter in grass countries with high fences, is unquestionably very great, and the author believes that few hunting men will dissent from this opinion, provided that other conditions are equal. One of the chief difficulties confronting the hunting man in the selection of a suitable thoroughbred, has been that in connection with weight, as the weight-carrying thoroughbred is the exception, hence the reason why there has been a desire for many years on the part of hunter-breeders to produce a class of stallions capable of reproducing weight-carrying hunters. Although the thoroughbred is extensively employed as a sire for the production of hunters, it has frequently failed to produce progeny suitable as weight-carriers. Hitherto no difficulties have been experienced in breeding light-weight hunters, capable of satisfying all reasonable demands; in fact, the thoroughbred can claim to have done more good in the perpetuation of the

hunter and hunter qualifications, than any other variety of horse.

Its siring qualites are mainly based upon those of speed, intelligence, springiness of action, endurance, and leaping abilities, all of which features are inherent in the blood-horse, derived, as it has been, from Oriental parentage.

The establishment of weight-carrying hunter sires is, without doubt, the best means for the permanent creation of a fixed type of hunter, capable of carrying any reasonable weight. In the selection of a thoroughbred sire, one of the main features must be to see that the animal has plenty of bone and substance; that it is of good temperament, and free from any trouble that is likely to be transmitted from parent to progeny. Much the same remarks are applicable to the brood mare, though in a less degree, as the dam, in the author's opinion, plays a less significant part in the physical development of the progeny than the sire.

Since the foundation of the Hunter's Improvement Stud Book Society the breeding of hunters has been carried out on much more scientific lines than hitherto, and all interested in the

HUNTER MARE, "GOLDEN LEAF" (A BIG WINNER)
Owner: E. W. ROBINSON, Esq., Leighton Buzzard

production of hunters owe a debt of gratitude to the good work that this Society has performed.

The chance production of hunters is gradually being obliterated, and replaced by one based upon correct lines. Up to within recent years, the production of polo ponies was of the same "chance" nature as that of hunters, but since the foundation of the Polo Pony Society, there has been a gradual elimination of the defective system previously in vogue.

CHAPTER III

HUNTERS SUITABLE FOR BOYS AND GIRLS

The term boy's hunter is one capable of rather wide interpretation, including, as it does, almost any kind of saddle-hack capable of being hunted, or perhaps, more correctly spoken of as capable of following hounds. Regarded in this light, anything from a Shetland pony up to a sixteen hands, or thereabouts, horse, would be included under the title. It is customary at many of the meets to see boys mounted on all sorts and conditions of ponies, some of which give very creditable performances, whereas others are indifferent, or even bad jumpers, The breeding of boys' hunters has never been regarded in a serious light, probably because the demand has not been sufficient to call for a supply of horses of this description. In the selection of a hunter

for a boy, or for a girl, it is necessary to consider the age and temperament of the rider. It may be accepted as a rule without any exception, that freedom from vice of all kinds is of paramount importance. Any man disposing of a hunter for a boy or a girl which he knows very well is unsafe, is practically guilty of a crime, the penalty of which he ought to be made to suffer, in the event of any misfortune arising. To look well, youth requires a hunter proportionate in height to that of the person riding it. The typical boy's hunter should be one bred upon thoroughbred lines; schooled to the work it is required to perform; aged rather than otherwise; and in temperament absolutely reliable under all conditions. Many ponies at twelve and thirteen hands, of no particular type so far as breed goes, are sold as boys' saddle-hacks and hunters. The reason why the writer has advocated the use of thoroughbred ponies, is owing to the fact that they are generally very good jumpers, and that the weight they have to carry readily comes within their limit. Doubtless some men will argue that such ponies usually possess too much "mettle" for a boy's or girl's hunter, unless the

rider possesses plenty of pluck and confidence in his own abilities to manage a pony of the type referred to. Less objection would unquestionably be raised against a pony of three-quarter or even half thoroughbred blood. Regarding colour and sex, these are more a matter of individual preference, but bay, black, brown, chestnut, are those in most general use, whilst white, grey, roan, and dun, are in less demand. In the writer's opinion there is nothing to equal bay, chestnut and brown. As to sex, geldings are preferable to mares, though the prices are slightly higher. There is not much difficulty experienced, as a rule, in teaching ponies to jump, in fact, it may be accepted as true that few, if any, ponies are unable to do so. The best method of training comprises daily exercises in hurdle jumping, gradually increasing the height of the jumps as the tuition becomes better understood. Some boys, and possibly girls, are of an ambitious nature, and may be tempted to perform feats of horsemanship quite beyond the range of their powers. In any case, it is a good plan, during the schooling of boys' hunters, to train them to jump up to about four feet.

CHAPTER IV

BUYING HUNTERS

THERE are many sources available for the purchase of hunters in various parts of the British Isles, but probably the most purchases are made through the horse repositories, of which the principal one in London is Tattersall's; but important auctions are those held at Crewe and Wrexham, where first-class hunters can very often be purchased. The latter are the sales of Messrs. Frank Lloyd Ltd. A large proportion of both *made* and *unmade* hunters come from Ireland, and some really clever animals are imported from that country. Ballinasloe has its annual horse fair, and a fair percentage of unmade hunters are purchased at that fair, by dealers visiting it for such purposes. There is no doubt that this can be made a profitable business by a man possessed of tact, good

judgment, and capital, along with the necessary facilities for thoroughly schooling the young stock that he purchases; more especially if he is fortunate enough in obtaining some good-looking animals, of what will, ultimately, develop into "weight-carriers," and for which high prices are readily paid, provided the animals are clever at their work. It is reasonable to assume that hunting the fox will never become an obsolete pastime, consequently the demand for hunters will not be like that of the horses required for haulage purposes, which, to a large extent, have been displaced by motor traction. The price to be paid for a *made* hunter is, necessarily, much higher than that required for one that has not been made, or, more correctly, "schooled." Light-weight hunters are not half as difficult to obtain as those of the weight-carrying class, neither are the prices comparable, provided the animals are of equal merit as performers. As previously stated, it is a common practice to purchase unmade hunters at the various horse fairs held throughout England, Ireland, and Wales, but as most of these are untried animals, the prices are relatively small.

At some of the horse repositories reasonable facility is given for trying horses over hurdles, but a certain amount of care is necessary when purchasing from such sources, otherwise, *trouble* may be bought, in addition to the horse. All the repositories have the conditions of sale attached to their catalogues, and purchasers must rigidly adhere to such rules, which, along with the catalogue description, require to be carefully perused. High prices are frequently given at Tattersall's for hunters having a good reputation in the field, and it is very much better to pay such, than a fabulous sum to a private vendor. Most absurd sums are occasionally paid for hunters, in fact, quite out of proportion to the intrinsic merit of the animal. Age, sex, breeding and abilities, have all to be taken into consideration, together with the soundness of the animal or otherwise, when buying a horse of the hunter class. Some dealers make a speciality of hunters, and really first-class animals are often obtainable from them, provided the applicant makes it clear as to what he wants, and what he does not want. Some hunters are required to carry up to 18 stone

others only 8 or 9 stone, but the average may be set down at 11 stone 7 lbs. A method not uncommonly employed by those in search of a hunter, is that of advertising in some paper, such as the *Field*, taking care to set forth in the advertisement the exact nature of one's requirements. It seems almost needless to remark that in selecting a lady's hunter, particular care has to be exercised as to the temperament of the animal, its freedom from vice, and whether used to carrying a lady, all of which features most be strictly inquired into. Whether buying from a private source, or from a dealer, it is quite a reasonable request to be allowed the animal on trial for a week or ten days, by which means the intending purchaser will have ample opportunity for observation of the animal's general behaviour, and also be able to satisfy himself as to its capabilities in other respects. The temperament of a hunter, like that of man and other animals, is very variable, and what may appeal to one man as being suitable for his purpose, would, to another, be most objectionable. Well-seasoned hunters are those which have been ridden regularly to hounds for several

HUNTER GELDING, "BROAD WOOD"
Owner: W. A. SIMPSON, Hinchcliffe

seasons, whilst "aged" hunters are those that are beyond eight years of age, the term "aged" being a convenient designation applied to all horses after they have turned their eighth year. Strictly speaking it has rather an ambiguous meaning; nevertheless, it is one which is indispensable. Readers wishing to make themselves acquainted with the methods employed for ascertaining the age, must refer to the chapter dealing with that subject. The author presumes that any one contemplating purchasing a hunter will, prior to concluding negotiations, have a qualified veterinary surgeon to examine the animal as to soundness, otherwise there may be more than one regret for not having done so. The fee for this purpose ranges from 10*s.* 6*d.* to £2 2*s.*, exclusive of out of pocket expenses for travelling, &c.

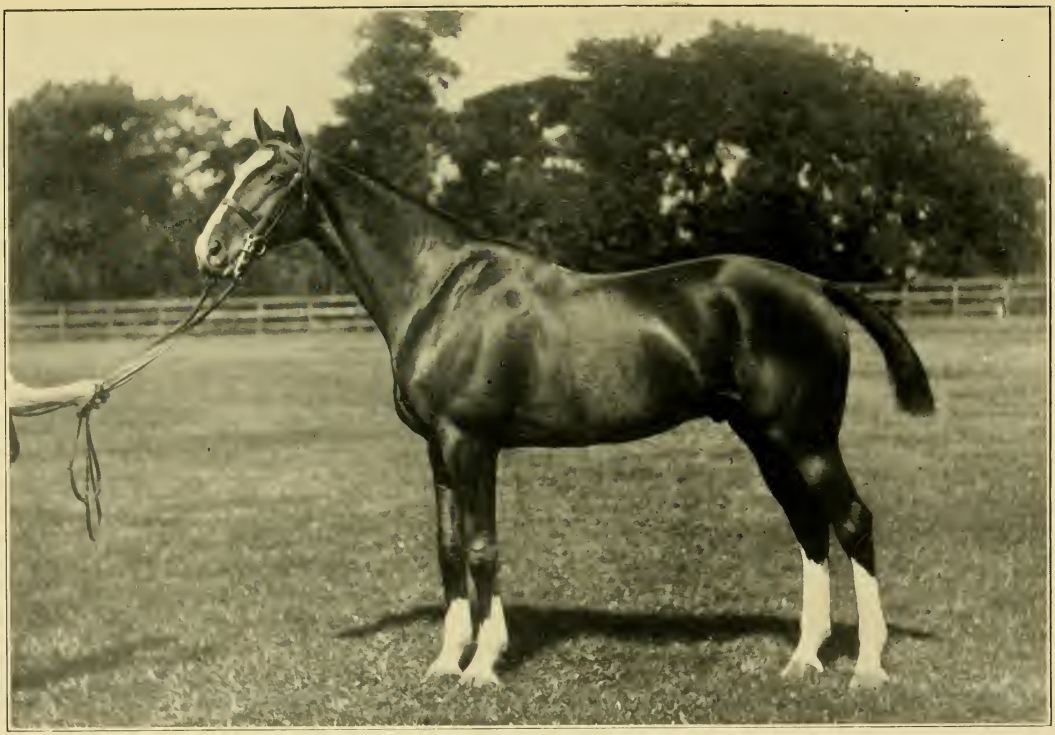
CHAPTER V

HOW TO ASCERTAIN WHETHER A HUNTER IS SOUND OR OTHERWISE

It is impossible to over-estimate the value of soundness in a hunter, and, in a general search for defects, it is necessary to resort to what may be termed a systematic or methodical examination of the animal. The mere examination of individual parts in a casual manner is as useless as it is stupid, and only identifies the examiner as one possessing very superficial knowledge. The author does not wish the reader to believe that he expects a non-professional to examine a hunter as to soundness with the freedom and assurance of a veterinary surgeon; nevertheless, an amateur may, by the exercise of diligence and ordinary precautions, prevent himself from falling into errors so prevalent in equine transactions.

In the phraseology of an Irishman, the catch-as-catch-can system, when applied to the examination of horses, becomes a delusion and a snare, the penalty for which the buyer has too frequently to bear. Admitting that assurance is the outcome of knowledge, and impudence the outcome of ignorance, it follows as a logical sequence, that he who possesses the former will be better fitted to examine a hunter than the latter. Supposing that a hunter is brought to one's own stables, or that the intending purchaser visits some establishment with this object, it is reasonable to assume that he will make certain preliminary trials with the animal, as to its suitability for his purpose. First of all, the price must be ascertained; secondly, whether it is free from all forms of vice, either in the stable or when following hounds. If the answer is in the affirmative, this, in the presence of a witness, will constitute a *specific warranty* in relation thereto. A written memorandum would be of equivalent value, but it is not essential to prove warranty, provided that such can be substantiated by evidence. A hunter should then be jumped, galloped, and tried in accordance with the

facilities at one's disposal. It must be borne in mind, that there is a vast difference between jumping a hunter in *cold blood*, and a hunter jumping when *following hounds*. In all probability its temperament will vary under both conditions, but it is hardly reasonable to assume that a purchaser will have the exceptional facilities for trying under both conditions, though it is by no means rare for a seller to permit of this being done. The next matter is to have the animal placed on level ground, and take a general survey of its conformation, such as, the character of the head, the carriage of the neck, the position of the limbs in relation to the body, the shape of the shoulders, knees, pasterns, and feet: the build and the size of the body, the strength of the back and loins, the slope of the quarters, the turn of the hocks, and disposition of the parts below the last named. A good deal of information can often be gained by a critical survey of the animal from the front, sides, and rear. It is customary for the expert to examine a horse on the near side, and then proceed to the off side, beginning, in each instance, at the nose. First of all, inspect the incisor teeth for the age,



HUNTER GELDING, "THE GERMIDAH" (WINNER OF MANY PRIZES)
Owner: H. C. WALTON, Esq., Offley Ley, Crewe

and, in order to do this, it is necessary to grasp the tongue with the left hand, and withdraw it from the mouth on the off-side. After noting the age, examine the angles of the cheeks for evidence of old scars or thickening, indicative of a puller. The right hand is then passed underneath the jaw, for evidence of swelling, and the fingers placed upon the submaxillary artery, in order to ascertain whether the pulse is normal or otherwise. In the healthy animal, the pulse should be full in volume, firm and resistant to the pressure of the fingers, regular, and beat from forty to forty-five times per minute. Irregularity and intermittency are abnormal conditions, and point to heart trouble, functional or otherwise. The author does not say that there are not exceptions to this rule, but if there are, they are certainly very uncommon. The hand is now passed over the upper part of the throat, and the larynx lightly squeezed to ascertain the existence or otherwise of a cough. From this region it is passed downwards, over the sides and front of the neck to the shoulders, and the fore limb then examined from above to below, on its front, inner, outer, and posterior surfaces.

The front of the limb requires inspection at the knee to see whether it is blemished, banged, or otherwise injured. At the same time it can be flexed in order to note its freedom of movement. The pasterns and fetlock joint next demand inspection, this being the region, also that immediately above the hoof, in which *ringbone* is liable to make its appearance. When examining the back of the limb, the left hand should be passed over the tendons and the cannon bone, which is commonly the seat of splint, sprained ligaments, and thickened tendons, whilst below, the fetlock is not uncommonly either puffy, or enlarged, all of which constitute unsoundness. It is impossible to over-estimate the importance of sound feet in a hunter, in fact, in any horse for that matter, and it is a general rule to examine each of the feet when examining the limbs, but it can be relegated to what the author has, for convenience, designated *the after examination of special parts;* if not, then the foot must be examined for sandcrack, flat-sole, sidebone, brittle hoof, separation of the wall, thrush, corn, canker, &c. (See chapter on diseases of the feet.) This practically completes the ex-

amination of the fore-limb, but no mention has been made of speedy cutting, which, so far as the writer is aware, is uncommon in hunters. The body or the middle-piece must be gone over with the hand, more especially the back of the loins, to note whether there is any evidence of old or recent saddle-galls, stiffness of the back, &c. The inside of the thigh must also be inspected, and after this has been done, the hind limb examined from above to below; the most important part is the hock, this being the seat of bone-spavin, bog-spavin, and various bursal swellings. The best method of detecting bone-spavin is to view the hock in profile from the front, and, by means of the hand, compare it with its fellow, when any difference in size will be noted. If spavin is present, it appears as a slight enlargement at the inner and lower aspect of the hock. The hock is also liable to be the seat of curb, thoroughpin, capped hock, &c., all of which are usually regarded as constituting unsoundness, but are referred to in another chapter. Pick up the foot and flex the hock, as *freedom of shoulder and hock action* are vital to the work of a hunter. This completes the

examination of the left side, which must be repeated on the right or "off" side in precisely the same manner. The wind, the eyesight, and the feet, still remain for examination. Remove the shoes to examine the feet, and get the farrier to pare the soles. Test the wind by galloping the horse, and also by the method recommended under the heading of "roaring," which, along with broken wind, are the respiratory troubles to be examined for. Finally, the eyesight requires to be carefully noted, cataract and opacity of the cornea being the commonest troubles affecting the eyes. No matter how slight the opacity, it will easily be seen as a blueish white speck, whilst cataract is a disease affecting the lens, and is denoted by a greenish stellate spot at the back of the interior of the eye. By placing a dark hat over the eye, the pupil should dilate, and again contract when this is withdrawn, which proves the absence of *adhesion* between the *Iris* and *Lens*.

HUNTER GELDING, "DANDINE"

Owner: E. W. Bowers, Esq.

CHAPTER VI

AGE OF HUNTERS

The teeth of the horse afford the only reliable means of ascertaining the age of the animal, and then only up to (with any degree of reliability) eight years, after which time it is customary to speak of the animal as being "aged." It must not be assumed that because a horse has passed its eighth birthday, that its marketable value is materially less, because there are some men who wont buy a horse until it is eight years. This remark is particularly applicable to hunters required for elderly gentlemen, or those of nervous temperament, to whom a steady old horse is so desirable. The teeth are of two kinds, namely, *temporary or sucking teeth* and *permanent* ones or those which replace the former. The teeth in front of the upper and lower jaws are called *incisors*, whilst those at the sides of the jaw

are spoken of as *molars*, or *grinders*, of which there are twenty-four, but only twelve of these are temporary ones, three in each jaw being replaceable by the permanent ones. Incisor teeth are twelve in number, and in the horse (exceptionally in the mare) there are four *tushes or canines*, which are permanent, though not of much value as age indicators, nevertheless, useful as an aid for the latter purpose. The temporary incisor teeth are quite different from the permanent ones, and any one who has seen the two lying side by side at once recognises their distinctive features. The former are smaller and whiter, and have a better marked constriction or neck than the permanent teeth. A permanent incisor tooth is, for convenience, divisible into three portions, namely, the *crown*, or that portion projecting above the gum, the *neck*, which is encircled by the gum, and the root or *fang*. The crown is covered by enamel, beneath which lies "Dentine," and within this the pulp cavity of the tooth. The cutting or nipping surface of an *incisor* is known as its *table*, and it is from the degree of wear, as exhibited in the tables of the incisor teeth, that one is enabled to

judge the animal's age. The crown of the tooth is, as previously stated, covered by enamel, and as this forms the outer boundary of the table, it is spoken of as the "*outer enamel ring*," in *contradistinction* to another ring, the *inner enamel ring*, which forms a small ring in the centre of the table, when the tooth is well in wear. The "inner enamel ring" surrounds a *central mark*, which, in a recently cut tooth extends right across the latter. This mark is called the *infundibulum* or *mark*, which appears as a dark spot of variable shape, altering with the wear on the table. When a foal is born, or shortly afterwards, a pair of teeth will be seen in outline in the lower jaw. These are spoken of as the *centrals*, owing to the position they occupy. In the course of a few months another pair make their appearance, and these are called the *laterals;* subsequently a third pair make their appearance, which are spoken of as the *corners*, so that by the time the foal becomes a *yearling*, it has a complete set of *temporary* incisor teeth, namely, six in the lower jaw, and six in the upper jaw. These temporary teeth remain in the mouth until the animal is

about two years old, and are soon afterwards replaced by the permanent ones, but not until the colt is what is called two years "off", that is two years and three months. The terms "off" and "coming" are usually employed by horsemen to indicate either, that the animal has *passed* its birthday by about three months, or else that it is *approaching* its birthday within a similar period. The term "rising" is synonymous with "coming". In any case for these terms to apply, the period would not have to exceed six months. About two years and three months, the *central pair of temporary incisors* are shed, and replaced by the *first pair of permanent ones*. Soon after the animal is two years and a half, the new pair of teeth in the upper and the lower jaw meet when the mouth is closed, but it is not until two years and nine months, or even the beginning of the third year, that the tables of these teeth show indications of wear. Shortly after the animal has turned three years, say *three years* and *three months*, the same changes occur in the "laterals," and again, at *four years and three months*, the "corners" are replaced, so that,

when the animal is *five years* old, it has a *complete set of permanent teeth*, and the mouth presents a very characteristic appearance, familiar to every horseman who has had any transactions in horse-dealing. Here it may be as well to note that it is customary to refer to the incisors in the *lower* jaw only, more for the reason of convenience than anything else. The changes that have enabled us to tell the age of a hunter thus far, have been based upon the inception, or cutting of the teeth, but obviously, when the last pair have been cut, or, in other words, when the animal is a *five year old*, it follows that it is necessary to refer to some other portion of the tooth as an age indicator. This is done, as stated earlier on in the chapter, by reference to the tables of the teeth. It is necessary to mention that the area of the *table* in front of the "inner enamel ring," is known as the "anterior" edge of the tooth, whilst the corresponding area behind the "inner enamel ring" is the "posterior" edge. These two facts must be borne in mind, because they have such an important bearing in estimating the animal's age. As already stated it is an easy matter to distinguish

a five-year-old mouth, but considerable practical knowledge is necessary to discriminate between the ages of six, seven, and eight years. If a hunter is rising six years old, the "posterior" edge of the table is hardly on a level with the "anterior" edge, in fact, the shell-like characteristics presented by the "corner" incisors are usually regarded as a special indication of a six year old. Sellers of horses usually exhibit a good deal of elasticity of conscience about this age, or at seven years, commonly adjusting the animal's age to meet the requirements of an intending purchaser, who, it is not very likely, will have sufficient confidence to dispute the veracity of the seller's statements. The tables of the "central" teeth, also those of the "laterals," undergo alteration in shape through wear, and so does the "inner enamel ring," therefore, the "mark" changes from its elongated form to the triangular, and from the latter to one approaching a circle. The special features of a seven year old are mainly indicated by reference to the "posterior" portion of the table, belonging to the "corner" incisors. This surface has now come *well into wear*, and when the tooth appears in this con-

dition, it may be accepted as the best evidence (apart from that of a positive nature) of a seven year old. Trouble is likely to arise as to whether a horse is seven or eight years, and critical inspection, combined with practical experience, constitutes the only really reliable method of determining the point. At the latter age, the tables of all the teeth show considerable evidence of wear, and the "central mark" in the "corner" incisors does not extend so much across the tooth, as in a seven year old. By the time the animal reaches twelve or fourteen years, the "central mark" is usually obliterated, if not, it is reduced to its minutest form. With increasing age, the gums shrink, consequently the teeth appear to be longer, and gradually change from the perpendicular position, to one of horizontal inclination, so that long teeth do not indicate an *aged* hunter, but an *old one*, or it may be, a *very old one*. Sidney Galvayne's method for ascertaining the approximate age of old horses, comprises reference to a groove on the face of the "upper corner incisors," just where the tooth joins the gum, arising from the receding of the latter. This groove is said to

make its appearance when the animal is ten years of age, gradually becoming more apparent at fifteen years, subsequently extending all the way down the tooth within the next ten years or so. So far, no reference has been made to the *molar* teeth, but their value as a guide for the amateur in relationship to age, cannot be considered as great, owing to their inaccessibility to inspection. The fourth permanent "molar" is cut about the twelfth month, which, along with the fifth and sixth in position, constitute the "permanent molars." All these are situated at the back part of the jaw, whereas the first, second and third "temporary molars" are placed in front of the jaw, and, in due course, are replaced by the "permanents."

Such constitutes a brief outline of the various changes taking place in the teeth, but it must be understood, that what may be termed *anomalous* instances of dentition are exceedingly common, but not sufficiently numerous to disturb the recognised system of judging the age of horses. As horses become older, they get hollower in the back, begin to droop in the quarters, get hollow above the eyes, and in many other ways show signs of increasing age.

CHAPTER VII

THE SCHOOLING OF HUNTERS

ALTHOUGH the education of the hunter largely depends upon the man in whose care the animal is placed, there is another powerful factor that constitutes a most important item, viz., the inherent qualifications of the animal, in other words, the legacy of parental abilities—the hunter by birth. The author makes a distinction between the "moulding" of qualifications, and qualifications that have to be "manufactured," which latter, in spite of all skill exercised by the trainer, will never be equal in development to those of inherent possession, provided the education has been liberal and well directed, it being a very much easier matter to spoil the temperament of an animal, no matter how good, by injudicious handling, than it is to create the fulfilment of the original ideas of the trainer.

In other words, it is easier to provoke vice than to curb it when once established.

The schooling of the hunter, practically speaking, extends from foal-hood up to the end of the fifth year, and doubtless many will say until two or three years after the period last named. The author is well enough aware that those who have largely to do with the education of hunters purchase their stock when about three years old, therefore, there is no opportunity for the earlier handling of the animals, which is a matter so much to be desired. In spite of this, purchasers of judiciously selected "unmade" hunters are, after a year or two's schooling, able to turn out some first-class animals, and when a man does so it speaks volumes for his abilities. As previously stated, the earlier the hunter foal is handled the better, and there is no better subduing influence, or none more salutary, than that of association with man. When the foal is still running with the dam, it can easily be taught to come to the owner or his attendants when called, no matter whether it be in the loose-box or in the paddock, and this early association gradually becomes strengthened when the foal is able

HUNTER GELDING, "BULGARIA" (A WINNER AT MANY SHOWS)
Owner : Mr. Jas. Young

to take dainty bites from the hands of the groom.

Haltering, leading, feeding, watering, and general kindness are all part of the foal's education, even to the time that it is three years old, when its education may be said to begin in earnest; but it must be borne in mind that it is quite a baby as yet, and totally unfitted to undergo any severe form of work.

To work a hunter prematurely in this manner is to ruin it at the very outset of its career, and no man with any knowledge of horses would, I imagine, be so stupid as to do so. I do not mean to say that a three year old, or even a two year old for that matter, should be allowed to "vegetate," but what I do insist upon is that an animal at this age shall not be ridden to the hounds, compelled to undergo severe exertion, or called upon to perform any class of work that entails severe labour. If the early exercises in handling have been judiciously carried out, the subsequent schooling of the animal is not, as a rule, one of great difficulty; nevertheless it is one that requires skill, patience, perseverance, and a sound knowledge of animal instinct. In

other words, the breaker, trainer, schoolmaster, or whatever other fanciful epithet under which he styles himself, must make his pupil clearly understand the object of his actions, and insist upon the due performance of them, as the horse is not slow to take advantage of any weakness that he may display in the observance of his commands.

No less important to the trainer, and to his pupil, is that of method, for without regularity, and repetition during the process of training, all actions directed to the pupil, become either nullified or dwarfed in their utility.

Stable manners, quietness during shoeing, standing at ease during mounting and dismounting, familiarity with motors, hounds, other horses, with trains, and a variety of street or road nuisances, all constitute a portion of the hunter's education, and no hunter, however good in other respects, can be considered as perfect unless it possesses these qualifications, plus certain others to be subsequently mentioned.

As previously stated it is essential in the schooling of the hunter that the animal is put through its exercises six days out of seven with

the same degree of precision and forethought. Exercises in jumping, reining back, walking, cantering, galloping, besides an acquaintance with the various sights and sounds associated with everyday life. Probably one of the most important matters in connection with the lesson in leaping is that of training the animal to be cool and collected during the act of jumping, as rushing at fences constitutes a most dangerous practice, and the hunter given to such a habit is almost bound, sooner or later, to come to grief.

Begin the leaping lessons with the leaping bar about a foot from the ground, gradually increasing it daily inch by inch, up to three feet, and when the latter height has been reached, or certainly not more than three feet nine, the animal should be well schooled at this jump, not only over hurdles and furze, but also over artificially constructed walls, the latter being very useful jumps. This can be followed by the water jump, which is one of the most difficult of of all, as it necessitates training a hunter to jump both high and wide, and if hunters were only better schooled in this particular part of

their education, better performances would be the result. The "in" and the "out," is also a troublesome jump, nevertheless, the important matter with every hunter is to be able to do this jump in a clever manner, which can only be attained by practice, so that it is always advisable to have jumps of this description in the paddock where hunters are schooled. Anything over four feet up to five feet four, may be considered as a good jump, and the last standard of height necessitates more than an ordinary degree of cleverness, whereas the phenomenal jumping competitions that can be witnessed every June at the Olympia, are of such a remarkable character as to be well worthy of a visit from every horseman. The show jumper is gradually developing into what may be termed "speciality," but is is only just to say that the International Show brings together the finest collection of hunters in the world, to say nothing of the various Masters of the Hounds, &c., who enter into the numerous competitions.

After the novice has been schooled up to jumps of three feet six or four feet, and proficiency attained, the height can be increased a

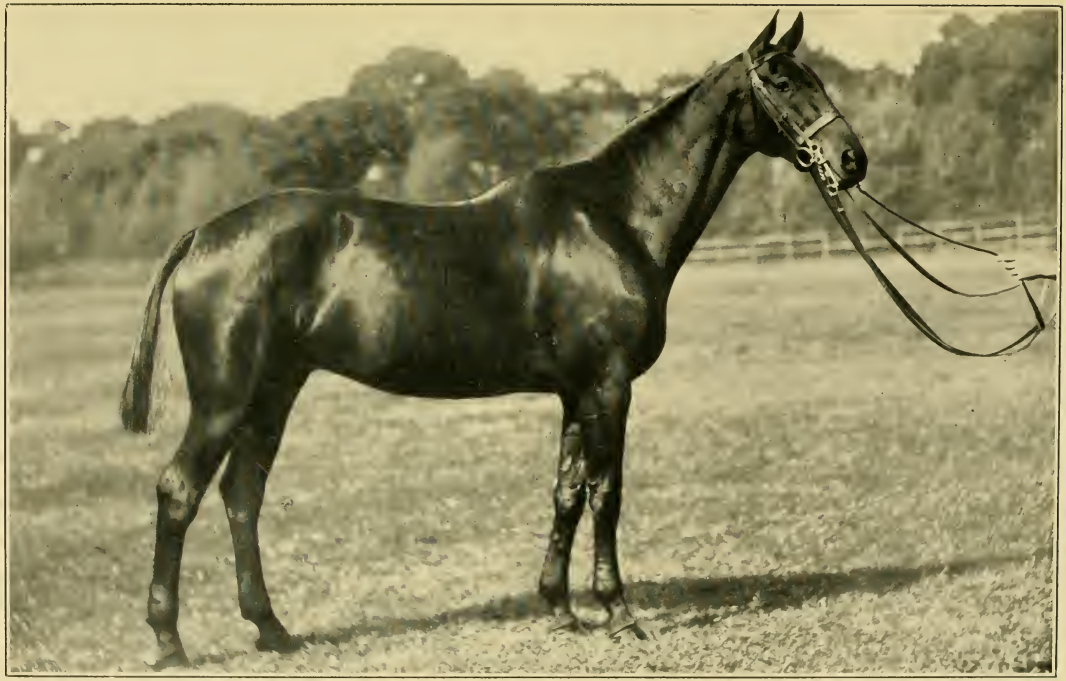
couple or three inches every week, but it is no use to increase the jumps in a haphazard manner, lowering them one day and making them higher the next, as such a system is only conducive towards slovenliness in jumping, and a scholar that once acquires the habit of rapping and knocking down the jumps, becomes so used to it, that it will ever afterwards continue to be a slovenly jumper.

Some trainers begin the preliminary jumping lessons on a longeing rein, but it is a better practice to do so with saddle and rider, as a horse schooled in the manner first named is inclined to acquire liberty of action, which when discarded for that of restraint, destroys the value of the earlier lessons. The author is aware that differences of opinion exist in relation to this matter; nevertheless he believes that the less mechanical aids are used in the breaking and training of hunters, the better the ultimate results.

CHAPTER VIII

THE HUNTER'S FORAGE

Preliminary Remarks. It seems almost superfluous to remark that the successful management of a hunter or a stud of hunters is, to a very large extent, dependent upon the quality, along with the quantity of the forage supplied. The spurious economist is the man who purchases inferior fodder, and his stud of hunters is certainly not one comparable with that of the hunting man who buys the best that money can buy, who supplies his horses liberally, when liberal feeding is required. The incongruity of the term spurious economist is obvious, even on the slightest reflection, it being impossible for economy to exist in two forms—true and false. To feed any kind of horses upon inferior forage is almost as bad as purchasing damaged fodder, the evil results of feeding upon which are well



A TYPICAL HUNTER, "THE JOKER"
Owner : H. C. WALTON, Esq., Offley Ley, Crewe

known to all horsemen. There are always plenty of forage vendors willing to supply fodder to meet the requirements of their customers, some of which, unfortunately, have no more intimate acquaintance with what the quality of forage should be, than the forage has with them. To recommend the master to purchase his own forage, and to see that it is delivered absolutely in conformity with (not in part) the whole of the sample submitted, is one of the most valuable recommendations that can be given to any purchaser of forage. It is impossible to emphasise too strongly the importance of personal attention in this matter. Neither pride nor work, worry nor indulgence, can be accepted as exonerating one from following this simple expedient. The moral is to buy the best food you can, insist on its judicious use, house it carefully, and purchase when prices are low, yet compatible with quality. Mere lowness of price must not be accepted as positive evidence of a general drop in market prices, as such may arise from circumstances purely *local* in their nature.

The following cereals, grasses, roots, &c.,

may be said to constitute, though in a variable degree, the forage used in all hunting stables:

OATS

Oats may be said to constitute the staple article of dietary for hunters, and may be given either whole or bruised. For young and middle-aged hunters, whole oats are the best, digestion being favoured by free insalivation, most readily induced by compulsory mastication, which the whole oats necessitate. For old hunters, or others with weak digestion, bruised oats are the best. Oats vary remarkably in their quality, some being worthless for feeding purposes, others of very little value. In the author's opinion, Scotch and English oats are decidedly the best, but very good samples of foreign oats are easily obtainable. White oats are preferred to the black, though many of the latter samples, from the best firms, will compare favourably with the former. The grain of the oat is composed of two parts, namely, the husk or shell, and the kernel. The true test of quality is that of having a thin husk, but some oats are

THOROUGHBRED, "PRETTY POLLY" (WINNER OF MANY RACES FROM JUNE 1903 TO 1906)
Her breeder and owner was Major EUSTACE LODER

very deceptive in this respect. They look very fine on casual inspection, but when critically examined, will probably be found all shell or husk, and no kernel. In poor oats, the kernel amounts to about 60 per cent. of the weight; in good oats to 75 per cent.; and the best 80 per cent. Good oats should weigh from 40 to 46 lb. to the bushel, whilst worthless oats will weigh not more than 32 lb. to the bushel. When a sample is handled it should leave no unpleasant odour on the hands, such as that of mustiness, but be free from dust, &c., and other seeds. The individual grains should be hard and rattle freely when passed from hand to hand, but it is quite an easy matter to tell a good sample of oats, and this without a great deal of experience. Some forage vendors will mix their oats, large and small being blended. Bad oats are small, dirty, have an unpleasant odour, though the latter is occasionally disguised by fumigating them with sulphur dioxide gas, best detected by rubbing the oats in the hand, when the odour of sulphur is said to be rendered sensible. Musty oats are extremely pernicious for horses, and will readily

induce Diabetes Insipidus, so that, if this trouble occurs in a stud of hunters, it is a hundred to one chance that the forage is at the bottom of the trouble. Oats that are damaged from exposure to the weather assume a dirty colour, and if they have been kept in a damp place, they will probably begin to germinate, which is accompanied by a certain amount of heat. In this condition, they are totally unsuitable for horses, and readily induce an attack of colic. In order to get over this difficulty and arrest fermentative changes in the grain, they are put in a kiln and dried; nevertheless, this does not improve them for feeding purposes. Oats may be kiln-dried, provided that they have not been damaged, but kiln-dried fodder, damaged prior to this treatment, is absolutely pernicious. Oats should be a year old before they are used, and the only really reliable method of satisfying oneself upon this point is to buy a sufficient supply for a year in advance, and, when it can be done, there is no better method than purchasing direct from the grower, *i.e.* the farmer. The advantages of doing so are too obvious to need recapitulation. Oats are easily digested, and

experiments show that 77 per cent. of the proteids and 73 per cent. of the nitrogen free extract are digested. Hunters require from 10 to 16 lb. of oats per day, though even more than the maximum amount may be given. The following is an analysis of oats:

Carbo-hydrates	57.8
Proteids	10.4
Cellulose	11.2
Fat	5.2
Salts	3.0
Water	12.4

From the foregoing analysis it will readily be seen that the principal constituent of oats is the large amount of carbo-hydrates. As previously stated there is nothing to equal oats as a staple article of a hunter's fodder.

BARLEY

This is a fairly good food for horses, but it is certainly not as economical as oats, unless the market price is very much lower, and there are certain objections to its use, one of which is the

presence of the awns. In some countries it takes the place of oats, but it does not contain as much nitrogen, but about 10 per cent. more of carbo-hydrates. A bushel of good barley will weigh from 52 to 60 lb. Malted barley is that which is allowed to germinate, the process then being cut short by drying in a kiln. The rudimentary root and stem, produced during germination, drops off when dried in the kiln, being known as the combings or malt dust, which is then screened. The fermentative changes have converted the starch into sugar. Barley is not greatly used in hunting establishments, as most horsemen are well enough aware that it is distinctly inferior to oats, for which it is a substitute, though an imperfect one.

MAIZE

This is a totally unsuitable food for hunters, being far too stimulating and feeding. Its fat-producing properties are not conducive towards condition in a hunter. In South Africa, it constitutes the staple grain as forage for horses. It has nearly 70 per cent. of carbo-hydrates in it, about 10 per cent. of proteids, and about the

same percentage of water as oats. To improve the general appearance of a hunter, such as may be necessary in order to get the animal up for sale, the addition of crushed maize, say 2 lb. per day, can be advantageously employed.

WHEAT

This is very little used for hunters, and when it is given, a certain amount of care is requisite in order to guard against such troubles as colic, laminitis, congestion of the lungs, &c. Any one desiring to use it may give a pound or two daily, and if green wheat is used, the amount should not exceed 10 lb. per day. When hunters are in poor condition, or recovering from some trouble such as influenza, 4 or 5 lb. of green wheat per diem, will help to build up the constitution, but, as previously stated, it is a pernicious forage unless discriminately employed; therefore, this fact must never be overlooked, otherwise permanent or irretrievable damage may be done to the animal.

BEANS AND PEAS

The value of old beans for hunters is universally known, and every stud groom that wishes to put his hunters into good hard condition, knows that he must have a daily allowance of this forage. The amount of proteid material in beans reaches 25 per cent., whilst that of carbo-hydrates is about 55 per cent. In Southern India, there is a corresponding form of bean, known as Cooltee. The horse bean should be one year old before being used, and ought to be bruised, as whole beans, like whole maize, require too much grinding, and are apt to swell too much in the stomach. The average amount of beans for each hunter per diem mixed with the other forage, may be set down at 2 lb. Precisely the same remarks apply to peas, the one used for horses being the grey pea. Like beans, they should weigh about 64 lb. to the bushel, and be free from a very common trouble known as weevil. As both beans and peas are very rich in nitrogenous constituents, it necessarily follows that other foods, deficient in this respect, must be added for

the purpose of properly balancing the forage. Gram is principally employed for feeding horses in Northern India, being similar to that of the pea. It is given crushed, and sometimes soaked.

LINSEED

Linseed is a good deal used for all kinds of horses, more especially for sick animals, and no hunting establishment should be without a small quantity of this useful adjunct. It is sold as linseed; crushed linseed; linseed meal; and in the form of linseed cake. It is derived from the flax plant; it is highly nitrogenous; very rich in fat; having 37.0 of the last named, and about 20 per cent. of proteids. When linseed is given to hunters the best plan is to pour boiling water over the quantity required, and allow it some hours to swell the seeds. For hunters in poor condition, or for those which are sick, half a pound of linseed may be allowed night and morning, after being treated in the manner already described. When given without such treatment, it is said to pass through the alimentary canal entirely unchanged. Linseed

cake is most useful for hunters, and about half a pound of it should be broken up and given daily. The best cake only should be purchased, and a guarantee obtained, as adulteration with cheaper seeds is commonly resorted to.

CHAFF

That cut food is economical, few men will deny; in fact, the wastage of hay by some horses, likewise by grooms, is so frequent in some establishments, that one would think that it cost little more than shavings. The hay-rack is largely responsible for such wastage, but it possesses a still greater evil, which is, that of encouraging a horse to eat its bedding, and this in its turn, leads to other troubles, such as colic, &c., to say nothing of the annoyance it causes. Upon economical grounds, cut hay, or cut hay and straw combined, are recommended, and the addition of this, to the cereals, is distinctly advantageous. Meadow or clover hay should be selected, but good oat straw makes capital chaff. It is an excellent plan lightly to sprinkle the chaff with water.

ROOTS

Carrots, turnips, swedes, are occasionally fed to horses, but only as an auxiliary to other foods. Both carrots and parsnips are very much relished, and when procurable, advantage of this should be taken. For sick horses, carrots are invaluable, and when a hunter refuses such, it may be accepted, as evidence, that its appetite is very far from being right. The best plan is to wash the carrots, and give several of them in their whole condition. The same remark applies to parsnips. Both turnips and swedes are more laxative than even carrots, therefore one or two swedes per day will be abundant, and, under certain conditions, too much. Potatoes, though sometimes used for horses, are not a suitable food for them.

HAY

The value of good, sound hay for hunters cannot be over-estimated, no matter whether given to them as hay, or cut up as chaff, and to be able to recognise a good sample of hay

constitutes, or ought to constitute, part of every horseman's knowledge. Although many excellent samples of hay come from abroad, it is a difficult matter to find hay to supersede the finest samples produced in Great Britain, the best being that grown in England and Scotland. In the latter, the crop remains out of doors longer than in England, which is not an advantage; in fact, hay should not be left much longer than three days before being carried, though this is not always possible, owing to unpropitious weather, &c. The principal constituents of hay, being soluble in water, are washed out by the rain, thus reducing its nutritive value. It must be sufficiently dried to prevent it from becoming overheated when stacked. In the stack hay undergoes certain fermentative changes, and if these are excessive, it gets overheated, turns brown, and in advanced cases, is reduced to nothing but charcoal, thus rendering it absolutely useless for forage purposes.

The soil on which the hay is grown has an important bearing on the quality of the hay, and so has the length of time since it was cut.

It is stated that hay retains its nutritive property for about two years, when it begins to decline. Hay is spoken of as being *new* up to September 29, but strictly speaking, it ought to be called *new* hay up to one year from the time of cutting. The colour is not necessarily a guide, because some hay remains quite green though cut for two years or more. It is customary to regard *compression* in the stack or in the truss as an indication that the hay is old. Hay may be either upland or meadow, or water meadow, in accordance with the locality of its growth. The finest is that grown upon upland pastures and dry meadows, whereas water-meadow hay is very liable to be too much contaminated with aquatic herbage, of little or no feeding value. In the selection of hay, one can often arrange for purchase before cutting, making the necessary arrangements against contingencies. A pasture that contains a mixture of grasses, along with the addition of artificial grasses (clover, &c.), is, in the author's opinion, vastly superior to one consisting of a single grass or two, such as timothy, rye grass, or meadow grass. A

good sample of hay should contain the three grasses named, plus various others. Most of the Scottish hay has an abundance of rye grass, and the worst of all hay is that containing Yorkshire fog. Strange to say that in New Zealand, Yorkshire fog has a good reputation.

Rough cock's-foot grass is usually regarded as a good one. It grows in tufts, but it is a coarse grass, bulking very largely, and one that is apt to lead to digestive troubles, especially if allowed to flower before being cut.

There are two varieties of rye grass, namely Italian rye and perennial, both of which are, by common consent, regarded as extremely good grasses, in fact, nearly every good sample of hay, contains a fair sprinkling of such. The perennial rye is smaller than the Italian, the latter being a biennial plant.

Timothy grass is also regarded as a very good one, and like the cock's-foot, it grows in tufts, but if allowed to remain too long uncut, the stems lose their succulency, becoming woody, consequently indigestible. In some respects, this grass, resembles the

meadow fox-tail, particularly the inflorescence, but to the touch, that of the fox-tail is distinctly silky, whereas in the timothy grass it is the opposite. A very common grass, especially in upland pastures, is that known as the sweet-scented vernal, and to this is attributable, in a large measure, that beautiful aroma, so characteristic of good hay. The sweet-scented vernal grass has a small head and slender stalk.

The crested dog's-tail, and the smooth-stalked meadow grass, are not important forage grasses, whereas the meadow fescue is regarded as one of the best grasses, more particularly for water meadows. The tall fescue is much too coarse a grass, but the hard fescue is a tolerably good grass. The rough-stalked meadow grass, and the golden oat grass, are looked upon as fairly good grasses, and hay containing them is, by buyers, considered to be good. In judging a sample of hay, it is necessary to pay attention to the following points: (1) Pick out samples from various parts of the sack, and note the grasses contained in each. (2) Ascertain how long it has been

stacked, and whether it is in the same condition throughout, which is by no means always the case. (3) Note whether free from dust, mow-burn, mustiness, sourness, &c. (4) Observe whether of good colour, fragrant odour, succulent and pleasant to the taste, and any other particulars appertaining to its quality or otherwise.

In addition to the foregoing grasses, there are many other British species, some of which are good pasture grasses, others practically useless. The aftermath or second crop of grass, (sometimes the third), is rather troublesome to convert into hay, being very liable to undergo fermentation.

As hunters are required for fast work, they do not require a large amount of bulky foods each day, in fact this should be withheld altogether on the days that hounds meet. Every horseman knows that there is nothing more detrimental to a hunter than to ride it with its stomach filled with bulky food. It will not remain sound in its wind very long if such a practice be followed. It causes the stomach to press upon the diaphragm, and the latter upon

the heart and lungs, in consequence of which the circulation becomes embarrassed in parts that should be allowed most perfect freedom. The writer does not mean to say that hunters, like other horses, should not be allowed hay, because this would be an injudicious statement. A small quantity of hay can be allowed on non-hunting days, and when circumstances permit of its being used at other times.

ARTIFICIAL GRASSES

Under the heading of artificial grasses, a large number of very useful forage plants are included, such being fed to horses both in their green and dried condition. Being members of the natural order of leguminosæ or pea family they are rich in nitrogenous constituents, and horses are very fond of these plants. As previously stated, the clovers, vetches, &c., form a valuable addition to hay, but they are quite unsuitable for hay by themselves, as owing to their extreme succulency, such hay would readily become mouldy. The following comprises some of the principal grasses: (*a*) The Clovers. There are numerous

species of clover, such as the red, or broad leaf clover; the white or Dutch ditto; Alsike or Swedish clover; the yellow clover and the yellow suckling clover; all of which are of variable degrees of utility.

(*b*) The Sainfoin. Both of these plants are greatly appreciated by horses, there being two varieties of the sainfoin.

(*c*) Tares. The tares are a very fast growing crop, and do well on nearly any soil, and as there are both spring and winter varieties, it is a green food that is exceptionally valuable for sick animals, and if there is any land that wants disposal, tares can be grown with advantage.

(*d*) Lucerne. The lucerne grows freely on calcareous soils, and makes a capital green food for hunters. This same plant comes in its dried condition from the States, Argentine, &c., under the name of *Alfalfa*. Lucerne will continue to grow for a number of years.

(*e*) The Kidney Vetch. The kidney vetch is occasionally grown as a green forage plant for horses, but as an article of fodder it is not of very great importance. In the management of all leguminous crops it is essential to cut

MODEL HUNTER SIRE, "THE TINMAN"

Owner: A. KNOWLES, Esq., Albaston Hall, Nantwich, Cheshire

before the haulms become woody, and to take particular care in the drying process.

BRAN

It is very few stables, especially hunting establishments, that do not use bran for one purpose or another, but the majority do use a certain percentage of bran as an ordinary adjunct to the forage, and in my opinion, rightly so, as this substance is rich in carbo-hydrates, as the following analysis will show :

Carbo-hydrates	54.9
Proteids	13.6
Fat	3.4
Cellulose	8.9
Salts	5.6
Water	13.6

Too much bran is certainly a bad thing for horses, as it contains a good deal of magnesium phosphate, and this is very liable to lead to the formation of intestinal concretions, more popularly known under the title of stone. Bran

mashes are a good deal used for hunters, more especially mixed with oats, and sometimes with linseed. There are very few horses that will refuse a hot bran mash containing the foregoing. Bran, especially in its moist state, is a laxative, and of material service in assisting the action of purgative medicine. Good bran is easily identified, the flakes being fairly large, leaving a floury mark when rubbed in the palm of the hand, and having a slight but pleasant odour. Some samples of bran are only fit for poultices. About 2 lbs. of bran is ample to form a bran mash for a hunter.

STRAW

Reference has already been made to straw when speaking of chaff, in which it can either be cut up along with the hay, or given as straw chaff only. If used, oat straw is the best for such purposes. Whole straw is not much employed as a forage for hunters in work, but it will do very well for two-year-olds as a substitute for hay, provided that it is of good quality. It is much too bulky as a forage for hunters, in fact, more so than hay.

COOKED FOODS AND CONDIMENTS

Neither cooked foods nor condiments should be used for horses, both being quite unsuitable to Herbivora, and the nearer one approaches the natural forage of these animals, the more likelihood one will have of obtaining better results. It has been proved beyond all question of doubt that cooked foods bring on such troubles as colic, &c., and that cooking destroys the vital products of a food suitable for horses. Moreover, it destroys the necessity for mastication, upon which the healthy digestive functions are primarily dependent. As to condiments, these increase, to an inordinate degree, the functions of the secretive glands with which they are brought into contact, creating a false form of secretive action, which is bound, sooner or later, to culminate in trouble. To say that condiments are beneficial is not a statement based upon facts, but upon mere hearsay, and the disciples of such are only fit to be classified under the common title of fabulists.

CHAPTER IX

VICE AND OBJECTIONABLE HABITS

UNFORTUNATELY, hunters like every other variety of horse are not exempt from what is popularly known as vice, a modification of which the writer has chosen to include under the same heading in the less clearly defined term of, objectionable habits. A casual thinker will meditate that surely there must be very little distinction between the two, but a thoughtful observer whose reflections are those of a better disciplined mind, will conclude that there is a distinct difference between vice and the mere possession of habits that do not detract from the usefulness of the animal, nor in any way interfere with its well-being, and such habits are well known to horsemen, who would not for a single moment decline to purchase a hunter which they knew to be guilty of such venial offences. It is

a very difficult matter to put a proper construction upon the term vice, more especially when it becomes considered in its relationship to the soundness of a hunter or otherwise. In its broadest meaning, one might include all offences directly or indirectly concerned, not only with its own well-being, but also that more immediately belonging to the possessor of the animal. It is the ambiguity of its meaning that so often renders its correct interpretation so mystifying to the layman. Litigation frequently arises because such and such a horse after purchase is found to possess some habit, or if you prefer it, vice, that renders it less useful than it otherwise would be: if so, according to the old legal definition as laid down for soundness, the animal would, under these circumstances, be technically regarded as unsound, and returnable on proof of warranty. It is necessary to bear in mind that a horse may easily develop a vice through the carelessness or ignorance of its owner, and once such becomes established, it is generally a very difficult matter to eradicate. It is much easier to acquire vice, bad habits, &c., whilst an animal is being broken,

than later on in life. Many vicious habits are acquired by cruel treatment, and as the horse has a remarkably retentive memory, such malicious influences are not readily forgotten, though it is quite possible that vice may be dormant for an indefinite period. It is well to bear this fact in mind, though unfortunately it is often overlooked. Unscrupulous vendors, when they wish to conceal a vice, occasionally resort to the administration of some opiate, such as a large dose of laudanum, or some other narcotic, which, for the time being, acts in the manner indicated. It is necessary to distinguish between vice and a high-spirited temperament, though the latter may easily be converted into a vicious one, either through ignorance or by want of experience. The following are usually regarded as vices:

CRIB-BITING

This is a very common practice, and often associated with wind-sucking, although the latter is the most pernicious practice of the two vices. A crib-biter seizes hold of the edge of the manger, or anything else within reach, and

if the fittings are wooden ones, it will gradually gnaw at them until they are almost eaten away, and the only method of preventing it is to feed the animal, either out of a portable manger; off the floor; or else muzzle it immediately after it has been fed. An inveterate cribber wears the front edges of the incisor teeth quite away, giving them a very uncanny appearance, which is readily recognisable as positive evidence of this vice. Apart from such evidence, it would be a difficult matter—in the absence of positive proof to the contrary—to prove the existence of the vice at the time of sale. The author believes that crib-biting is mainly the outcome of idleness, or a mischievous habit acquired through the want of something better to do. If a hunter gets plenty of work, it will not have much time for wood-carving operations in the stable.

WIND-SUCKING

As previously stated, this may be associated with the preceding vice, though not necessarily so. It is one of the most pernicious habits a horse can possess, and materially interferes with

the condition of the animal. It sometimes leads to severe attacks of colic, the stomach becoming excessively distended with gas, and a fatal issue is not uncommon. There is no doubt that the mucous membrane of the stomach is in an extremely irritable condition, and, in course of time, the stomach becomes dilated and its functions materially impaired. In passing it is worthy of note how very small the stomach of the horse is, in comparison with the animal's size. A wind-sucker apparently swallows in air, the act being accompanied by a "gulping" sound. There appears to be no remedy for this trouble, and once it exists, it continues throughout the animal's life. It is a vice of variable degree, sometimes being so slight as to be hardly noticeable, whereas, in other instances, it is so strongly marked that it can be heard in the stable. To prevent wind-sucking, a neck strap is usually worn, and it certainly is efficacious, but the trouble reappears directly it is removed. A wind-sucker is certainly not a sound horse, and if this vice is found to exist, the animal can, on proof of warranty, be returned.

WEAVING

Weaving is denoted by a to-and-fro movement of the head, whilst the animal is in the stable, and it appears to be the result of some form of nervous irritation, being particularly manifest when there are any causes likely to add to the irritability of the animal. As there is a constant to-and-fro movement of the anterior parts of the body, the animal does not acquire the necessary degree of rest, so essential for its restoration from fatigue.

REARING

This is an extremely dangerous vice, and a hunter possessing such is of more than doubtful utility, as the safety of the rider is greatly endangered. It is a vice that may be easily overlooked when purchasing, but no man should buy a hunter without a warranty as to freedom from vice under "all conditions within reason." A rearer may easily overbalance itself and tumble backwards, probably falling upon the rider.

BACKING

This is a much less serious vice than the preceding one; nevertheless, it may place the rider in a very embarrassing situation as the writer has experienced on more than one occasion. The animal usually makes it convenient to begin backing in most inconvenient situations, as though it were aware of the opportunity being a good one to demonstrate the object it has in view.

KICKING

The hunter possessing this vice is certainly not one that can be "highly recommended," so far as temperament is concerned, though it may be clever in other respects. Kicking is a vice that may be manifested in the stable, or in the hunting field, but in either situation it is a source of common danger, not only to horses and hounds, but also to riders. It is one of the most serious vices that a hunter can possess, and any one knowingly purchasing such an

animal can only deserve to suffer from any trouble that may arise.

RUNAWAYS

Some hunters in following hounds are of such an excitable temperament that the rider seems to lose all control of the animal, and it is hardly necessary to say that for a horse to bolt with its rider constitutes the most serious danger. Such headstrong hunters require very careful bitting, and are only capable of being ridden by men of the regardless type.

SHYING

Shying may become an exceedingly dangerous practice, and many accidents have occurred from this cause. Visual defects such as cataract; opacity of the cornea; displacement of the corpora-nigra; short-sightedness; are the usual causes of shying, but pure nervousness sometimes makes a hunter shy and restless in other ways. Perfect sight constitutes one of the most important essentials in a hunter,

and shying about one of the worst defects that such could possess.

DIFFICULT TO SHOE

This is sometimes referred to under the title of forge vice, and some hunters are, like many other horses, extremely troublesome to shoe, resenting any interference by the shoeing-smith. It is a most objectionable form of vice, and certainly indicative of a surly temperament. In order to overcome this difficulty, the horse-shoer has occasionally to adopt anything but pleasant measures in order to protect himself against injury, and this does not tend towards an improvement of the vice; nevertheless, it may be absolutely essential.

TEARING BANDAGES AND BODY CLOTHING

This is a most annoying habit, and one that can only be overcome by muzzling the animal, or else by leaving off the clothing altogether. It is very often the outcome of idleness; there-

fore, plenty of work suggests itself as a means of remedying the evil.

BITING AND SAVAGING

These two vices are almost inseparable, or at any rate are equally dangerous, and a hunter possessing either is certainly not a desirable possession to any one, excepting the groom who has absolute control of the animal. It is rather an uncommon vice, in comparison with the number of horses in use. It is just as incurable as kicking and bolting, its establishment being practically a life-long vice. More than one groom has been killed by being bitten and trampled to death by horses given to the vices alluded to.

CHAPTER X

THE FOOT: ELEMENTARY ANATOMY APPERTAINING THERETO

For convenience of study, the foot is divisible into two portions, one being called the horny (or insensitive) foot, and the other the sensitive foot. The former encloses the latter, being represented by the hoof, and it is specially developed for protecting the internal mechanism of the foot, and at the same time for the purpose of progression. The hoof comprises the wall, the sole, the foot-pad or frog, the bars, and the heels, all of which are insensitive structures. The wall is divided into an upper and lower border, and has at its junction with the sole, a white line running around it, which indicates where the two structures meet. The front of the wall, towards the lower border, is called the toe, whilst the inner and outer sides are known

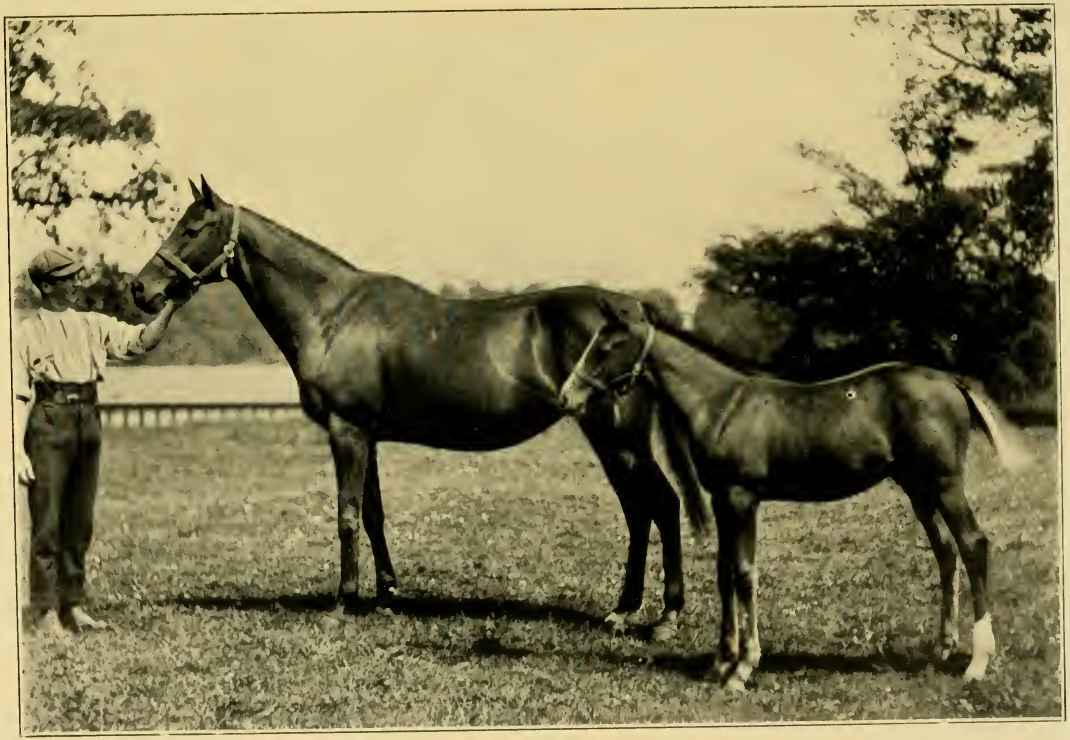
as the quarters, the wall on the inner quarter being the thinnest, and the horn at the toe the thickest. The upper border of the wall is encircled by the coronary band or cushion. In its normal condition the horny sole is concave, but, in disease, *e.g.* sub-acute laminitis, it becomes flattened or even convex. The *wall* and *sole adjacent thereto constitute the chief weight-bearing structures of the foot*, though this fact is too often ignored in shoeing. Placed in the middle of the sole, at the back, is the foot-pad or frog, which is an elastic triangular pad, with an apex and a base, and a central cleft. These clefts are known as the middle and lateral "lacunæ." Situated on either side of the foot-pad, forming, as it were, its outer boundary, are the "bars," which are reflections of the wall at the heel, and an important part, serving as they do to strengthen the foot in this region, and ought never to be pared away, a practice, unfortunately, too commonly adopted. The horny sole is secreted by the horn-forming structures of the *sensitive* sole, whilst the wall of the hoof is formed from the *papillæ* on the coronary cushion. From each papilla, a horn

fibre grows. The *sensitive frog*, or foot-pad, is moulded upon the insensitive or horny one, to which it corresponds, and from its papillæ the horny structure (frog) is formed. The coronary band, as previously stated, encircles the upper border of the hoof, forming the projection, or collar, so plainly manifest. The principal vessel supplying this structure is the coronary artery. Inside the hoof is the pedal bone, which, in form, is a replica of the hoof. This bone is composed of dense compact tissue, but it has certain peculiarities which serve to distinguish it from all other bones of the skeleton. It is remarkable for the large number of minute openings, or foramina, which serve for the passage of blood-vessels into the interior of the bone, and to supply the sensitive laminæ covering its face. Below, the pedal bone is moulded upon the inner surface of the horny sole, and covered by a soft velvety tissue—the sensitive sole, from which, as previously stated, the *insensitive* sole is produced.. The backward prolongations of the pedal bone are termed the alæ or wings, attached to which are the *lateral cartilages*—two thin flexible plates of

hyaline cartilage, structures that have, with advancing years and concussion, an inherent tendency to undergo calcification, in other words to develop into *side-bones*. This remark applies to both the fore and hind feet, though no importance is attachable thereto, in connection with the last named. In continuing the description of the pedal bone, it must be mentioned that its upper surface is purely articular, forming a joint with the second phalanx, or short pastern bone. This is the corono-pedal articulation, and it is entirely embedded within the hoof. There is a central prominence, or small peak-like projection, in front of the articular surface of the pedal bone. This is the "pyramidal" process, and it serves for the attachment of the extensor-pedis tendon, or great extensor of the limb. The principal arteries supplying the foot are the *plantar*, and the *preplantar*. There is a small facet at the back of the articular surface of the pedal bone, which serves for articulation with another small bone, the *navicular bone*, which, by the way, is a small ship-shape bone placed at the back of the corono-pedal articulation,

and over the surface of which the flexor pedis tendon plays, becoming attached to the lower surface of the pedal bone. The sensitive laminæ on the wall of the pedal bone consist of numerous leaf-like projections, which are *dovetailed* into corresponding horny laminæ on the inner surface of the hoof-wall, forming a very strong bond of union. In a perfectly healthy foot, the hoof is covered with a waxlike bloom, the periople, secreted from the perioplic ring, which is situated at the top of the hoof.

In concluding the description of the foot, the reader will find it advantageous to make himself practically acquainted with this part, which he can easily do by obtaining specimens from the horse slaughterers. A vertical section can be made with a saw through the middle of the hoof, to display the parts in their normal positions, whilst another hoof may be buried for a week or ten days in a manure heap, the heat and moisture from which will separate the parts for the purpose of study. An elementary knowledge of the foot thus obtained will never be found out of place.



THOROUGHBRED, "THROSTLE" (WINNER OF THE ST. LEGER 1894) AND FOAL

CHAPTER XI

HUNTER'S SHOES AND SHOEING

The shoeing of hunters necessitates the exercise of the highest degree of skill by the farrier, and it usually happens that in hunting districts there is a shoeing-smith particularly skilful in this particular branch of the art of farriery. On the other hand, there are many shoeing-smiths thoroughly incapable of shoeing a hunter satisfactorily, and who persist in following out this special branch of their avocation upon lines contrary to correct principles. The more enlightened craftsmen possess a sounder knowledge of the elementary principles of the anatomical construction of the foot, and the relationship of its various parts as weight-bearing structures. It is a noteworthy fact that no craftsman receives more instructions

from outsiders as to how he should shoe such and such a horse, than the shoeing-smith. Indeed, it would not be tolerated in any other branch of trade. Some peculiarity of action, which may be a defect of conformation, possibly may necessitate precise instructions from either the owner, or stud-groom, to the farrier, but this is a totally different matter from the prevaricating idiosyncrasies of some wrongly informed groom. Hunters require to be shod very close, and their shoes must be well nailed down, otherwise the latter will be thrown. The average period of wear should be three weeks. The best form of shoe for both fore and hind feet are those that are of the concave pattern. The front shoes are fullered and concave on the ground surface; there should be six nail holes, three on the inside, and three on the out. As previously stated, close fitting is indispensable, therefore, the shoe should be fitted about an eighth of an inch shorter than that of its bearing surface. Another matter of considerable importance is, that of rasping the heels of the shoes with a slope equal to that of the heels of the foot. This will prevent

the shoes from being torn off during jumping, &c. The hind shoes may have calkings, but the toe of the shoe should be rounded and have two toe-clips, whereas the fore shoes should have one toe-clip, these being the type of shoes in general use for hunters. Master farriers purchase the fullered iron in lengths, though some prefer to buy machine-made hunting shoes, the manufacture of which has almost reached perfection. In some hunting-studs, steel is used for the shoes, but such is exceptional. If a hunter is given to brushing, the best plan is to shoe it with two small square calkings, along with close fitting of the shoe, and the reduction of the hoof-wall, on the inner side of the foot, to its lowest possible limit. Never allow the shoes to remain on longer than about three weeks, as the growth of the hoof displaces the shoe from the position occupied when the animal was last shod. It is spurious economy to allow a hunter's foot to remain without removal of the shoes longer than the prescribed period. The shoeing of hunters, with leathers, is occasionally adopted, though usually for the purpose of disguising some tenderness of the

feet. So far as the welfare of the feet is concerned, it is a bad practice, though it may diminish the effects of concussion.

When a hunter is shod with leather, these should be removed before the animal is brought or examined for soundness.

CHAPTER XII

SOME REMARKS ON THE HUNTER IN HEALTH

A PRACTICAL horseman will, in all probability, feel amused on being informed of those conditions which are ordinarily regarded as indicative of the healthy state of an animal, and it will be argued that one of the most satisfactory methods of ascertaining the standard of health, comprises that of thriftiness, and abilities to undergo the highest degree of exertion with a minimum of physical expenditure. The truth of such an argument is indisputable, nevertheless it is necessary for one to make oneself acquainted with what may be termed, for convenience, the "barometrical indicators" of the animal economy. Such indications are afforded by the visible mucous membranes, by the pulse, by the breathing, the temperature of the body,

the attitude of the animal, and by the state of the excretory organs, which we shall consider in the order named.

VISIBLE MUCOUS MEMBRANES

The visible mucous membranes commonly referred to, are those lining the eyelids and nose but principally the first-named. It is, indeed, exceptional for a veterinary surgeon to look at a sick horse without the preliminary examination of the conjunctival membrane. The *normal* condition is a bright pink colour, but quite free from injection of the minute vessels entering into its structure. In anæmic or bloodless states of the system, this membrane becomes pale and washed-out looking. On the other hand, when there is internal congestion, such as pneumonia, laminitis, influenza, &c., the membrane assumes a deep red colour, and the minute vessels are plainly mapped out upon its surface, showing that there is a corresponding degree of inflammatory action within. In certain diseases, such as purpura hæmorrhagica, the conjunctiva becomes marked with

blood spots (ecchymosis), indicative of a vitiated condition of the blood.

THE PULSE

A just appreciation of the value of the pulse as indicative of the healthy state, likewise a departure therefrom, necessitates a considerable amount of practical experience, without which it is not of much value as a guide. Normally the number of pulsations per minute in a hunter may be set down at 38, with a minimum range of 36, and a maximum of 45, but in diseased states the pulse may be as rapid as 100 or 120 per minute; if so, each pulsation is extremely small, in fact, it is almost as though a continuous wave of blood was passing through the arteries. Under normal conditions, when the animal is at rest, each pulsation should be distinctive, full in its volume, and regular in its time. The best position to feel the pulse is in the artery beneath the lower jaw, in which situation it can be lightly compressed against the side of the jaw, thus facilitating taking it. The pulse may be too quick, too

slow, too small, too hard or wiry, irregular, intermittent, double, and so forth, all of which are departures from the normal. Exercise and excitement increase the number of pulsations.

THE BREATHING

When a hunter is at rest and in perfect health, the number of respirations averages about 14 per minute, and each respiration is divisible into two distinct portions, namely, *inspiration* or the taking in of air, and *expiration* or giving out air. During the former act, the chest wall rises uniformly, whilst in expiration it falls in a corresponding manner. In the latter act, the air is completely squeezed out during the collapse of the chest wall, and not, as in *broken wind, partly squeezed out*, and the remainder of the act completed—in other words *expiration* must not be *double*. In distressed breathing, the flanks are called into play; the nostrils dilated; the fore limbs stretched wide apart; and the nose placed in the direction of the most fresh air.

THE TEMPERATURE OF THE BODY

The external temperature of the body should be equable, in other words one portion should be just as warm as another, though if the circulation is at all languid, those parts that are the most distant from the centre of it, are usually a little colder. The normal temperature of a hunter, whilst at rest in the stable, ranges from 100 to 101 degrees Fahr. with fractional divergences either way. Exercise increases the temperature probably several degrees, so that a hunter, that has been galloped hard and sweating, would probably have a temperature of 104. The clinical thermometer is a most useful appliance and ought to be in the hands of every horseman and stud-groom. It consists of a bulb containing mercury, and a stem with a detached rod of mercury known as the "index" or register. When the mercury expands in the bulb it causes the index to rise, which then remains as an indicator of the temperature. The clinical thermometer bears on its stem the following whole numbers, 95, 100, 105, and 110. Between these numbers are

four long strokes, and each of these has the value of two-tenths of a degree, expressed in this manner: 95.2; 95.4; 95.6; 95.8; followed by the whole number 96. Precisely the same remarks apply to all the other numbers. Common temperatures in fever are 104 and 105, less frequently 106, whereas *high degrees* of fever are indicated by registers of 106.6, 107, and fractions above the last number. The best clinical thermometers are those of English make, some of which will register in 30 seconds, but the average one requires a minute. Before using the thermometer, the index should be shaken down to about 96 or 97, readily done by taking the stem in the right hand and knocking the ball of the hand against the knee, the stem of the thermometer being between the fingers. The temperature should be taken night and morning, in the rectum, and held in position for a minute or so.

THE ATTITUDE OF THE ANIMAL

The position of an animal, in relation to health and disease, is well worthy of study by an observant mind, and one that very often

"LAVENO" (A WELL-KNOWN IRISH SIRE)

affords useful information, not only in cases of lameness, but also in various other diseases. In most lung troubles the horse persistently stands—the converse of cattle—whereas in abdominal affections, unless the pain is acute, it is generally found lying. Attitude may be characteristic of disease, as in acute laminitis, in which trouble the animal stands with both forelimbs advanced (if the disease is located in this part), or with the hind limbs forward, when the latter are implicated. Again, the pose of a limb may be characteristic of some particular injury, as in the dislocation of the knee cap.

THE EXCRETORY ORGANS

The skin, the kidneys, and the alimentary canal, constitute the principal excretory organs of the body, and it is through these channels that the waste products of metabolism of the body are cast out. When the kidneys are irritated by some deleterious material, they do, as a rule, take on increased functional activity, and endeavour to expel it. This is precisely what happens when hunters are fed on musty oats, or

other damaged fodder, resulting in the production of increased urinary secretion, or diabetes insipidus. Precisely the same remarks are applicable when the digestive tract has to deal with unsuitable food, or food that has been suddenly changed, only its method of elimination from the economy may not be through the kidneys, but directly through the digestive tube, and in some instances through the skin.

CHAPTER XIII

THE HUNTER IN HOSPITAL

WHEREVER there is a stud of hunters, it is tolerably certain that cases of sickness will occur, no matter how good the stud-groom's management may be. It is an excellent plan to have, in every hunting establishment, two or three loose-boxes detached from the main building, and retained expressly for the treatment of animals in hospital. The expediency of this at once becomes obvious when one considers the infective nature of certain maladies such as influenza, strangles, &c. The immediate isolation of a single case or even of a suspected one, may be the means of saving the proprietor endless work and worry. It must be borne in mind, however, that it is practically useless to effect isolation of any particular animal and yet the same

attendant wait upon the sick and the healthy. One of the advantages afforded by the possession of these loose-boxes is that it allows the owner to keep any recently purchased hunter from other members of the stud, until such time as he is satisfied that the animal is free from any communicable trouble such as catarrh; or any other allied malady, which is so common in horses coming from the stables of dealers, &c.

All cases of sickness and lameness are the most economically dealt with by throwing the animal off work at once, as rest constitutes the most significant method of dealing with equine diseases. The reason why rest exercises such a salutary influence is mainly due to the fact that a horse, during work, expends a vast amount of energy, mainly through the vigorous muscular contractions which are perforce brought into play; in other words the metabolism of the body is particularly active at this period. Destruction is greater than construction under the foregoing conditions, and much the same remark applies during excessive febrile disturbance, in which there is a rapid oxidation of muscular tissue.

The stud-groom in every hunting establishment is well enough aware of the value of rest in every instance of lameness; in fact a very large proportion of lame hunters are cured by this, and without the adoption of any other treatment. Too much emphasis cannot be placed upon the value of really good nursing, as opposed to indifferent or bad nursing. Some attendants seem to have no idea as to the management of a sick hunter, either as regards feeding it, or following out the instructions of a professional attendant, if such there be. First of all we will consider in detail the general management of a hunter placed in the sick box. At all seasons of the year the ventilation is of primary importance, though unfortunately this matter is too often neglected. There should be a constant interchange between the air outside, and that within the loose-box, but such interchange must not be carried out so as to expose the animal to a draught. The inlet window must be adjusted in accordance with the conditions of the atmosphere, and the impure air will, we assume, be carried out by an extractor in the roof, though in the most recent stables,

electric fans are now fitted, and serve in an admirable manner to produce constant circulation of air inside the building. Some grooms, when they have a sick horse to deal with, believe in shutting the door and window, thereby producing an overheated condition of the atmosphere within. Nothing could be more deleterious, and the idea is based upon a misconception.

The decomposition of organic matter is favoured by heat and moisture, and this is exactly what occurs under the foregoing circumstances, more especially if the drainage of the stable, and the bedding, are not kept in the best of order. The floor should be swept daily, the drains flushed with some disinfectant, and all soiled particles of straw removed, certainly not less than three times per day. Each time this is done, shake up the bedding, lift up the animal's feet, and if necessary use the foot-pick. During the summer, the body only requires very light clothing in the day-time, substituting a slightly heavier rug for night wear, unless the weather is excessively hot. Pay particular attention to the hygiene of the body each time

the rugs are removed, which should certainly not be less than three times a day. On the removal of the clothing any patches of sweat may, with advantage, be sponged with vinegar and water and the body then gone over with a wisp of straw, followed by the use of the dandy brush, the body brush and the chamois. During winter, woollen clothing will be worn, the main feature being to ensure warmth, combined with lightness of such clothing, as heavy body clothing is only requisite for sweating purposes, as in the case of a hunter that requires to be reduced in flesh. As the limbs are dependent parts of the body, and the circulation has to rise against gravity, it is common to find coldness of the extremities, especially when the circulation is in an enfeebled condition through lowering of the constitutional stamina by disease. In order to rectify this matter, flannel bandages are resorted to, and every sick hunter should have such neatly adjusted upon both fore and hind limbs. The improvement of the circulation in the limbs soon becomes obvious, whilst the use of bandages offers other advantages, such as additional support together

with the maintenance of the tendons in better condition. Bandages should be removed night and morning, and then reapplied, taking care not to obstruct the circulation by adjusting them too tightly. If any portion of the body surface has been blistered, it is necessary to see that such does not become abraded, by clothing or other tackle. The application of vaseline or lard will usually be found efficacious under these circumstances. Fresh drinking water should be supplied three times per day, and when medicine is ordered to be added to this, which it frequently is by veterinary surgeons, care must be taken not to add more water each time than the sick animal will be likely to consume. A good deal of febrifuge medicine is given in this manner, and here it may be worthy of mention that a saline laxative for the horse exists in the form of Epsom salts, given in half-ounce doses, dissolved in the drinking water, say night and morning, until the desired effect has been produced. There is a popular, though erroneous supposition, that it is necessary to give a sick horse tepid water to drink, which it very seldom appreciates. As a drink, there is

nothing better than pure cold water, but milk and soda-water, linseed gruel, oatmeal gruel, and either rice or barley water are necessary under certain circumstances. If the animal is having green food, the amount of water allowed will necessarily be smaller than when it is receiving dry food. No matter whatever nature the food supplied, it is of primary importance never to leave food before a sick animal, as this does, most assuredly, only tend to satiate it. The secret is to supply the food often and in small quantities, varying it as much as possible, there being, in variability, an appetising influence. A sick hunter, like any other horse when in hospital, commonly refuses all food placed before it; if so, it must be artificially fed, and this necessitates tact, patience, and perseverance—features, unfortunately, not possessed by every groom. Nevertheless the exceptions are very numerous, some studsmen being all that one could desire in this respect. Scalded bran, crushed oats, and linseed make an excellent mash, but not more than a quart should be placed before the animal, twice or thrice daily, and the portion remaining unconsumed

ought to be removed immediately, and thrown away, or else given to pigs, poultry, &c. Bran mashes are distinctly laxative, though variable in their effects, according to the amount of water used. The addition of two or three tablespoonfuls of treacle will often persuade a sick horse to take its food, whilst scalded hay (to which two or three tablespoonfuls of treacle have been added) makes a very palatable fodder for a horse on the sick list. When obtainable, cut green food is invaluable, the best being, rye grass, clover, sainfoin, vetches, and tares, which can be varied according to circumstances. Some sick hunters are very fond of roots, such as swedes, turnips, and carrots, any of which may be cleaned, and fed to the animal whole, one or two being sufficient each time, excepting in the case of carrots, of which half a dozen would be a reasonable amount. Dry food is not suitable for animals that are troubled with a cough, so common in influenza, &c. Nauseating medicines should not be added to the food, as this has a decided tendency to keep the animal from consuming its rations. If necessary to resort to the forcible administration

of food, twelve eggs beaten up with a pint of milk, to which some stimulant has been added, such as half a bottle of claret, or a teacupful of brandy, is as good as anything that can be given. This may be repeated three times per day, taking care to give it slowly and cautiously, avoiding two most pernicious practices, namely, pinching the throat, and pouring fluid down the nostril, in order to compel the animal to swallow. The period of convalescence in all sick horses is usually rather short, but the animal must not be put to work too soon. Exercise of a mild character constitutes a valuable aid towards the re-establishment of health, and every stud-groom should, when the conditions are favourable, insist on its being regularly carried out.

CHAPTER XIV

BLISTERING, PHYSIC, ADMINISTERING MEDICINE, ETC.

BLISTERING AND COUNTER IRRITANTS

Blistering the limbs of hunters is one of the commonest practices adopted in hunting establishments, and there is no doubt that it constitutes a very reliable method of dealing with many troubles that would otherwise prove refractory to treatment. Sprung tendons, splint, bone-spavin, curb, and various other allied troubles are usually dealt with by blistering, or by a combination of this with firing. The substances generally used as blister agents are the following:

Cantharides, or the Indian blister beetle.
Red biniodide of mercury,

both of which can either be used in the form of a liniment or as ointments. Sometimes the two are combined. Strictly speaking the latter is not really a blistering agent, but what is known as a rubefacient, which means to make red; nevertheless, it does produce blisters, and so will the ordinary white oil, if freely rubbed in. Some horses are much more susceptible to the action of blistering agents than others, as proved by the readiness, or otherwise, with which blisters appear after the part has been rubbed with the vesicating agent. As blistering ointments require careful preparation in order to ensure their proper action, the most economical plan is to purchase such from a veterinary surgeon, stating the purpose for which it is required. Before the application of a blister, the hair should be clipped off, and the part then washed with soft soap and hot water, and subsequently thoroughly dried. The blistering ointment is now rubbed in with smart friction for a period ranging from ten to twenty minutes, and the animal "tied short" for the next twenty-four hours, in order to prevent it touching the blistered part. After the blisters have risen, and

burst, it will be necessary to smear the part with some soothing application such as lard, vaseline, carbolic oil or carron liniment. It is not advisable to blister more than two joints, &c., at once; in fact, it is cruel to do otherwise. To reduce puffy swellings about joints, such as windgalls, capped-hock, &c., iodine ointment, or liniment, is the best counter-irritant. When hunters are blistered and turned out for the summer a *cradle* should be put on. As a counter irritant for lung, throat and abdominal troubles, mustard paste is largely used, and its degree of action is regulated by the time that it is allowed to remain on. In some instances the paste is well rubbed in, and washed off again in about an hour's time, the skin being subsequently rubbed with soap liniment. If allowed to remain on, it often produces very severe effects, but circumstances sometimes necessitate this. The activity of mustard is increased by the addition of white oil.

PHYSIC

By the term physic, horsemen understand a *purgative*, usually given as the so-called physic

ball, the stock sizes of which range from four to seven drachms, but a five- or six-drachm physic ball is quite sufficient for any hunter, provided that the animal is properly treated before and after the administration of the physic ball. If a hunter is being fed on dry food and the bolus given without any preparation, the probabilities are, that little, or no purgative action, will be produced. On the other hand, if it has been having green or sloppy food, superpurgation will most likely result. If attention be paid to the following directions neither should occur. First of all, give the hunter a bran mash in the afternoon, then another one at night, and in about an hour's time administer the physic ball, which will in all probability be freely acting on the following morning; if not, give another small bran mash, but do not allow any hay until the purgative has had time to do its work. A pailful of tepid water given to drink will materially aid the action of the physic, but if purgation is active, this must be omitted. The animal may then be brought back on to its ordinary rations. One fact worthy of

mention in connection with the administration of physic is, that it sometimes exerts *diuretic* effects, thus passing off by the kidneys. Hunters can be purged by salines, such as Epsom salts, mixed with the food or drinking water, and the author has found the daily administration of half-ounce doses of Epsom salts, to foals troubled with worms, a most efficacious remedy. Linseed oil given as a pint dose, is an excellent laxative for a hunter, especially if followed by two or three ounce doses of Epsom salts, dissolved in the drinking water.

ADMINISTERING MEDICINE

To be able to give a draught or to administer a bolus, in a thoroughly workmanlike manner, necessitates practice, combined with tact and patience. It is astonishing to find how very few men know how to do so, in a proper manner at any rate. All liquids, forcibly administered, should be given slowly, either out of a proper drenching can, or else from a bottle. The head must be supported either by means of a twitch, or else with a noose around the upper jaw, and

the free end of the rope thrown over a beam. The old-fashioned plan of using a stable-fork is a most dangerous one. The head must be held well up and the liquid allowed to trickle slowly down the throat by placing the neck of the bottle in the *mouth at the left side*, *but the bottle neck must never be allowed to pass between the molar teeth*, especially, if a glass one. When administering a ball, the tongue should be drawn with the left hand, the bolus taken between the fingers of the right hand, and smartly passed on to the back of the tongue, the mouth being immediately closed afterwards, to watch for the descent of the bolus down the gullet.

FIRING; OR, THE ACTUAL CAUTERY

From the earliest times firing has been resorted to as a means of alleviating or curing lameness, arising from such troubles as bone-spavin, splint, curb, ringbone, &c., though very often it does no good.

When judiciously employed, it certainly constitutes one of the most valuable adjuncts

to the armament of the veterinarian, but its indiscriminate employment is deserving of the severest condemnation. A part may be fired either in lines or in points, according to the suitability of its application. In splint, for instance, point-firing is the best, whilst the blemish is insignificant. For sprained or sprung tendons, it is customary to fire in lines, whilst many hunting men have the back tendons of the fore-limbs of their hunters fired merely for the purpose of strengthening or bracing them up. Cross-firing is a severer method, one line obliquely crossing another. Line-firing ought not to be too close, otherwise sloughing is too severe. It is a common practice to fire a part and then smear it with blistering ointment immediately afterwards, in order to increase the irritation, which is regarded as a reparative one, set up by the actual cautery on the blister. Some hunters will stand to be fired, others must be thrown with the hobbles, but it is needless to remark that firing is a painful process, and that a hunter must have a very submissive temperament before allowing it to be quietly done. The

hair must be clipped off, and the part brushed before firing. The period of rest after this operation varies from three weeks to three months, according to its severity. The writer thinks that it is a better plan to blister in two or three weeks' time than at the time of firing. A *cradle* must be put on if a hunter is put out to graze, and allowed to remain on for several weeks.

CHAPTER XV

THE HUNTER: INCIDENTAL AILMENTS

UNDER this title, the author proposes to give a *résumé* of several of the principal ailments incidental to the hunter. Some of these are of a *specific* nature, *i.e.* organismal in their causation, whereas others are more correctly spoken of as *functional*, *i.e.* due to perversion or disturbance of the working power of certain organs, such as the stomach, liver, kidneys, and so forth. Age, sex, condition, and a multiplicity of extrinsic forces, necessarily exercise a bearing upon the production of disease, and the last named has a further-reaching influence on the course and termination of a malady. The following embraces the ailments we purpose discussing:

INFLUENZA

Most veterinarians are agreed that influenza is a specific or micro-organismal disease, and one that, unfortunately for horses, is particularly prevalent, though such prevalence is specially marked at certain seasons of the year—spring and autumn—though high and low states of barometrical pressure do not constitute periods of its cessation. That influenza is transmissible from horse to horse is a fact that very few men will dispute, but the pathways of its transmission are less obvious than those of its infective nature. It is characterised by its diversified forms, its insidious method of attack; by the severe prostration, high temperatures and the almost constant catarrh; in fact, the latter, plus the prostration, must, in the author's opinion, be regarded as its most classical features. If one member of a stud of hunters becomes affected with this trouble, the probabilities are (unless precautionary methods have been adopted) that other members of the stud will be affected in a similar manner. There is a particular manifestation of influenza known as "epizootic cellulitis"

or "pink-eye," the latter term being significant of the leading clinical features of the malady, namely, a deep-red colour of the mucous membrane lining the eyelids (conjunctiva), coupled with a swollen or œdematous condition of the same. This trouble is said to have originally been brought to Great Britain from the United States. In every instance of influenza there is a strong tendency (no matter whether the disease affects men or animals) towards involvement of such vital organs as, the lungs, heart, bronchial tubes, liver, and the serous and fibro-serous structures in various parts of the body; hence the reason why pleurisy, rheumatism, and the valves of the heart, not uncommonly participate. Some authorities refer to these as complications of the disease, but whether this is a correct view to take or not, is a debatable point. It is sufficient to say that this malady is a most undesirable scourge, and has been for hundreds of years. To reduce to simplest terms a clear comprehension, it is better to define it in the following terms: Influenza is an infective febrile disease of variable duration, and characterised by lassitude, by discharge from the

nose, redness of the eyes, a cough, prostration, with a special liability to attack important organs. The *virus* may be regarded as both "fixed" and "volatile," so that if this theory is correct, the malady is capable of being transmitted, not only through the medium of the nasal discharge, but also by means of the atmosphere. When an infected animal is introduced into a stud of previously healthy ones, the malady usually extends to other members of the stud. Neither age, sex, nor good condition seem to exercise much influence over the spread of the disease, but whenever the constitution has been lowered by debilitating extrinsic forces, such an animal must be regarded as predisposed to contract the trouble. One attack does not confer immunity—in fact, it is questionable whether it has the slightest influence over succeeding ones, differing in this respect from strangles. The premonitory signs of influenza are indicated by rigors or shivering fits, by lassitude, injection of the visible mucous membranes, accompanied by dryness of the same. These signs are soon followed by nasal discharge, watery at first, subsequently

purulent. There is usually a hard cough at first, but when there is a free discharge from the nasal passage, the cough, though still troublesome, partakes of a moister character. The dulness and lassitude increase, and so does the febrile disturbance. If the temperature is taken it will in all probability be found to be about 105 or 106 degrees Fahr., but the temperature of the body with influenza varies. When it is 103 or 104 degrees, the febrile disturbance is comparatively small. Veterinary surgeons usually regard such temperatures as 106 and 107 degrees as high ones, and horses do not as a rule continue many days with such relatively high temperatures. Thirst is generally very marked, and the animal refuses all food. In the so-called bilious form of this trouble, the liver is implicated, and the visible mucous membranes, also the white portion of the eyes, assume a deep saffron tint. The pulse is generally slow, but in nearly every case of influenza it is feeble, and the impulse of the heart against the chest wall is, as a rule, during the early stages of the trouble, particularly marked. The rheumatic complications are denoted by swelling

at one or more of the joints, and such swelling has one remarkable characteristic, and that is its sudden shifting from one, to reappear at another. This is spoken of as metastasis and the disease as being of a metastatic character. That manifestation of the disease known under the popular title of pink-eye has already been referred to, and it is usually accompanied by very severe prostration and a decided tendency to sudden collapse of the patient. The lung complications, so prevalent in influenza, are not readily recognised by the amateur, and the insidious nature of such undesirable features renders it necessary whenever possible to have skilled advice. It will prove the most economical. In giving a summary of the outlines of management and treatment of a hunter, or stud of hunters, labouring under this affection, it is impossible to insist too strongly upon the necessity of good nursing, a detailed account of which will be found on reference to the chapter, "The Hunter in Hospital." Inhalations of medicated steam are beneficial, and can be employed by means of a kettle, much the

same as a bronchitis kettle used for human beings, but grooms usually steam the nasal passage by pouring boiling water upon bran, sawdust, hay, &c., though this is not a very satisfactory method. Half an ounce each of oil of eucalyptus and of turpentine may be added, in order to medicate the vapour. Instead of draughts, it is customary to use an electuary.

STRANGLES

This is a very common malady in both foals and young hunters, in fact, one of the commonest troubles incidental to colts, and one attack confers a degree of immunity, though not absolute. There is no doubt that strangles is an infective disease, though the channels of infection are exceedingly difficult to determine. In its ordinary manifestation it is a comparatively benign complaint, and one that most colts pass through, being analogous in this respect to measles in a human subject. Many owners of colts allow them to remain out of doors whilst they are passing

through this trouble, but if the weather is severe the author thinks it is better to house them. The premonitory signs of strangles are denoted by dulness and general unthriftiness, followed by a swelling beneath the jaw, extending to a fulness around the throat. This swelling gradually increases in size, though sometimes very slowly, until it finally breaks, and matter issues from the opening, or it may be several openings. This is the abscess of strangles, and it is customary amongst veterinary surgeons to either blister, foment, or poultice such swelling, in order to hasten the maturation of the abscess. On the other hand, some practitioners (fortunately in the minority) allow the abscess to break itself, but this is not a very wise plan, and it is equally bad surgery to open the swelling before it is properly ready. A slight degree of fever, cough, and other minor signs of constitutional disturbance, are usually associated with this complaint. It is not uncommon to find abscess after abscess forming along the track of the windpipe, and these generally give a good deal of trouble. What

is spoken of as an "irregular" form of strangles, is that in which the abscesses appear in connection with internal organs, such as the heart, mesentery, brain, spinal cord, &c., in all of which situations the malady is necessarily of a grave nature, in fact, fatal. Signs of internal pain may be indicative of such trouble.

COLIC

The hunter, like every other horse, is liable to be troubled with this affection, more popularly known under the titles of belly-ache, gripes, fret, flatulent colic, &c., all of which are practically synonymous, exception being taken to the last term, which is more or less reserved for colic accompanied by distention of the belly with gas, and it certainly is a much more formidable trouble when associated with the condition last named. A multiplicity of causes might be enumerated in connection with this affection, which to the amateur are practically indistinguishable. Sudden changes of food, fermenting food, too much cold water when the

animal is overheated, excess of green food, the abuse of purgatives, worms, intestinal concretions, &c., are frequent causes of colic. Before hunters are "summered," a dose of physic should be given. Colic is denoted by spasmodic pain in the belly of variable intensity and duration, with or without gaseous distention of the abdomen. In an acute attack, the animal begins to roll, paws the ground, and during the paroxysms of pain is constantly lying and rising. Severity of the pain soon leads to sweating, which increases whilst the extremities become cold and clammy. Sometimes an attack of colic will pass off within half an hour, whereas in other instances the pain will continue for several days, but it is not a favourable sign for a hunter to continue in this abnormal condition, though the trouble does not necessarily terminate fatally under these circumstances. Recurrent attacks of colic are not uncommon, and are generally due either to dietetic errors, the presence of worms, or else intestinal concretions. When the pain continues without any abatement, the pulse becomes hard and wiry, small in volume, and

in an irritable condition; the injection of the mucous membrane deepens; the facial expression assumes an anxious character; the animal ultimately becoming worn out through the continued pain. Twist of the bowels, and other allied organic lesions, commonly show themselves in the manner indicated.

Treatment must be directed to the removal of the cause, if such be possible, and it is only by bearing this fact in mind, that colic can be successfully treated. When accompanied by severe flatulency, the trouble is of a most urgent character, and the sooner professional aid is obtained the better. A very safe remedy in most cases of colic is a pint of linseed oil, to which an ounce of chlorodyne has been added. This can be repeated in three hours. Another useful draught is two ounces of sulphuric ether, in conjunction with a pint of linseed oil, two ounces of turpentine, and one ounce of chlorodyne. Instead of giving opiates to allay the pain, stimulants may be substituted, such as one ounce of sal volatile, one ounce of tincture of nux vomica, along with half a pint of water. Unless contrary indicated, bran mashes and

other sloppy foods are necessary. The animal's body must be kept warm, and also given, if possible, a deep bed of sawdust and straw to lie upon. Sometimes exercise does good, so does rubbing the belly with a wisp of straw.

CHAPTER XVI

AFFECTIONS OF THE RESPIRATORY APPARATUS

HUNTERS, like every other variety of horse, are liable to suffer from various affections of the respiratory apparatus, and it is a well-known fact among horsemen that many hunters, in spite of such defects, prove to be very creditable performers. Admitting that a good hunter can exist with some chronic affection of the respiratory tract, it is, nevertheless, an indisputable fact that such defects not only lower the marketable value of the animal, but in many instances act so prejudicially as to endanger the lives of both horse and rider. In looking over the descriptions of hunters as catalogued at the various repositories, one is struck with the careful wording of many of the descriptions contained therein. Common

expressions are "sound in wind and eyes." In the present chapter, we are only concerned with the former. Obviously the vendors attach great importance to soundness of wind in a hunter; therefore, it is expedient for the reader to make himself acquainted with the principal respiratory diseases in relationship to soundness or otherwise. There is no necessity to refer, excepting in the briefest manner possible, to those acute pulmonary complaints which necessarily incapacitate a horse from performing work at the time of their existence. It is impossible to insist too strongly upon the importance of soundness of wind, when selecting a hunter. It may be accepted as true that all, or nearly all, respiratory defects, apart from acute affections, are permanent, therefore incurable. Many vendors will sell a hunter under such terms as, "touched in the wind," or "makes a bit of a noise," terms that are familiar to horsemen, probably more familiar than the latter are with the causes operative in the production of such abnormal sounds.

The principal defects in connection with the

respiratory tract are included under the following headings:

ROARING AND WHISTLING

Amongst horsemen these terms are very familiar, yet it is astonishing to find that only a comparative few of such have any idea as to the true significance of their meaning. Both terms are expressive of abnormal sounds produced during breathing, whilst the animal is undergoing a variable degree of exertion. The former is a hard blowing sound differing in its intensity, whilst the latter is, by many, regarded as a modification of the former. It is a distinct whistling sound, and the individual possessing it is popularly known as a "whistler." Some authorities regard both roaring and whistling as *hereditary*, but indisputable evidence has never been produced to prove the correctness of such a view. In support of the tenability of the hereditary theory in relationship to the production of roaring, such theorists usually turn to the progeny of Thoroughbreds developing the trouble that has been common to their pro-

genitors. Some peculiarity in the conformation of the neck has been regarded as a predisposing factor in the development of roaring. Certain hunters become roarers quite early on in life, others develop it later. As a rule the sound is developed insidiously, but occasionally it appears suddenly. It may be continuous, or only of an *intermittent* nature. Intermittent forms of roaring are the most deceptive, and a veterinary surgeon examining a horse as to soundness, might easily overlook such a defect, in spite of the fact that he employed all reasonable means at his disposal for its detection. Needless to say, there would be no liability on his part, on the ground of professional negligence.

By far the commonest cause of roaring is that in connection with the muscles of the larynx, the fibres of which gradually undergo a pathological change, known as fatty degeneration; consequently, the muscles are no longer capable of performing their normal functions. Implicated in this diseased process is the motor branch of the left recurrent nerve. It is the dilator muscles of the larynx that are in a paralytic state. Apart from this, as a cause of roaring,

there are other causes, such as morbid growths in connection with, or in juxtaposition to, the larynx; a growth or growths in the nasal passage; stricture of the air tube; malformation of the larynx; lead poisoning; and the consumption of Indian vetch (*Lathyrus sativus*). When roaring is of an intermittent nature, the chances are that it is due to some morbid growth, of a pedunculated stalked character, in the vicinity of the larynx, which by its presence, *temporarily* occludes the laryngeal opening. Its displacement and replacement, in the situation named, have positively been proved to be concurrent with the development of the roaring sound at irregular intervals. What may be termed *acute roaring sounds* are those incidental to swelling around the throat, so commonly observed in strangles: to the consumption of the Indian vetch; to inflammation of the larynx, and to other factors of a less definable nature. As previously stated, the sound varies in its intensity: some hunters make a tremendous noise with the slightest exertion, whereas in other instances, it is not only necessary to employ severe, but also prolonged exertion in order to bring the sound to

THE KING'S PREMIER SIRE, "BIRD OF PARADISE"
Owner: H. C. Walton, Esq., Crewe

THOROUGHBRED STALLION, "GALLINULE" (SIRE OF MANY WINNERS)

one's notice. A common *test* employed by horsemen for denoting the existence of this trouble is to make a feint to strike the animal, which, if affected, usually "grunts," but this is not *positive* evidence, as some horses will omit this sound from pure nervousness. It may be accepted as fairly good but not positive evidence. Its existence is certainly sufficient to warrant a thorough testing, and the best way of doing this is to put on the saddle and bridle, and gallop the horse on soft and heavy land. Pressure on the larynx, in order to induce the animal to cough, is a test commonly employed, but not much reliance can be placed upon it, whilst it is a practice abominably abused, and one commonly deserving condemnation. In the selection of a horse at a repository, fair, market overt, or other public place, the facilities for testing a horse's wind are not always obtainable, consequently most reliance has to be placed upon the simple expedient of resorting to the method first alluded to. No matter how clever a hunter may be, if affected with the trouble now under consideration, the price should never be a high one;

though the author believes that many horsemen will take exception regarding the truth of this statement, yet in spite of such contrary opinions, he believes the statement to be true. In order to do away with the sound, tracheotomy is the only reliable method that can be adopted, and it is one that is frequently resorted to, probably not so much amongst hunters, as in the lower class of harness horse. Many hunters will do tolerably good work, in spite of the fact that they are roarers, when kept on a course of arsenic throughout the season, but considerable discrimination is required during the administration of this drug, which really ought to be given under professional guidance. The best food for a hunter with this trouble is that which is least bulky, such as crushed oats and linseed, bruised beans and carrots, an occasional bran mash, to which a little linseed oil has been added, though of course, not much of the latter can be given when the animal is in a hard condition, and at work. Bulky foods should be avoided as much as possible, both during "summering" and "soiling," and the animal ought to be watered two or three hours before it is required for work.

BROKEN WIND

This is a very expressive term, implying as it does that the respiratory act is broken in two, or in other words double. It seems hardly necessary to state that a broken-winded hunter has no marketable value, though it may perform a certain amount of work. In some instances of broken wind, the disease changes have principally been in connection with the lungs and stomach; the former being dilated and the latter in a condition known as emphysema, which in plain language comprises rupture of the air spaces of the lungs, arising from their over-distention. Nothing definite is known as to the causes giving rise to this trouble, neither are the pathological changes, discoverable post-mortem, uniform in character, hence the reason why broken wind remains somewhat obscure, as regards the pathology of it. The act of "inspiration" is performed normally, but the "expiratory" portion is double (double lift) and appears to consist of two distinct phases, in which the first phase is marked by the air being forced out of the lungs until it reaches

a certain point—the second phase—through which the remaining air is *gradually squeezed* out of the lungs until the expiratory effort is completed. Careful observation of the chest wall of a broken-winded horse shows this *abnormal* expiratory effort distinctly, there being a furrow running along the wall of the chest, similar to that seen in some *acute* affections of the lungs. In addition to this peculiarity of breathing, a broken-winded horse has always a cough of a deep sonorous character, once heard, not easily forgotten. The best test to bring this cough evident, is to lightly compress the larynx with the hand. It is frequently heard when the animal is fed on dry food, and then watered. The cough may be disguised by an unscrupulous vendor, through the administration of various substances, but this concealment of the defect is only a temporary one, returning within forty-eight hours or so, after the administration of the agents employed.

Hunters and other broken-winded horses have occasionally been palmed off upon the unwary, so that it is necessary to bear in mind that a trouble of this kind may exist, and,

unquestionably, frequently does exist without the owner being aware of it. The rules for feeding a horse thus affected are to avoid bulky food; to feed and water at least two or three hours before the animal is required for work; to avoid the use of dusty fodder, and also to feed on soft food, such as scalded oats, linseed and bran.

PULMONARY APOPLEXY

This affection, also spoken of as acute congestion of the lungs, engorgement of the lungs, &c., is one of those maladies to which the hunter occasionally falls a victim, and when it does so, it is generally the result of the animal not having been got into fit condition. It may not be a difficult matter to purchase a hunter, but to buy "condition" is quite another matter, and one without the other is of very little use. Pulmonary apoplexy, following upon severe exertion, arises through inability of the heart to deal with the increased circulation, consequently the lungs become engorged, and the animal suffers from all the symptoms of embarrassed

respiration, such as heaving of the flanks, dilated nostrils, sweating, coldness of the body, rapid breathing, a small oppressed pulse, and other signs indicative of impending dissolution. Prevention, being better than cure, cannot be too strongly insisted upon, and if a hunter has been properly conditioned, it will not suffer from the trouble now under consideration.

Hunters, like other horses, suffer from various lung affections, such as pleurisy, pneumonia, &c., but as the present work is more immediately concerned with the hunter in health, it is inexpedient to enter into a discussion concerning the same.

CHAPTER XVII

SOME SKIN AFFECTIONS

Hunters are liable to suffer from various skin troubles, some of which are common, others of rare occurrence, but in a work of this description, the latter may be ignored, therefore the author will confine his remarks to the most salient features appertaining to some of the simple cutaneous affections.

URTICARIA OR NETTLE-RASH

This is an acute affection, characterised by the sudden appearance of numerous weals upon various parts of the body. The elevated patches of skin are of variable size, usually ranging from that of a shilling to a five-shilling piece, with a distinct tendency for adjacent weals to become confluent, *i.e.* the

fusion of one weal with another. Very often the weals disappear just as suddenly as they came, whereas in other instances they persist for a week or more. Hunters are occasionally affected with this trouble when fed too long upon a diet that is too stimulating, and there are good reasons for believing that nettle-rash commonly arises from derangement of the digestive organs, which in its turn disturbs the nervous system, culminating in the eruption already described. The best treatment for a trouble of this kind comprises a less stimulating diet, and if green food is obtainable, this is about the best forage that can be given. Bran and linseed mashes, to which a little treacle has been added, will be very suitable food. A physic ball, say a six-drachm dose, to be administered, this being the speediest means of banishing nettle-rash. To the drinking water, add half an ounce of bicarbonate of potash night and morning, or if this is not at hand, use nitrate of potash instead. As there is a considerable degree of irritation in connection with the skin, some soothing application is indicated, for

which purpose the following lotion will be suitable:

Acetate of lead	1 drachm
Laudanum	1 ounce
Water	½ pint

Mix, and wet the skin several times daily with this lotion.

Failing the success of this treatment, the best plan will be to consult a veterinary surgeon.

SORE BACK OR SADDLE-GALL AND GIRTH-GALLS

Every huntsman, and every horseman, knows how troublesome injuries of this nature are, and the inconvenience that such often cause. In most instances sore back is due to a badly fitting saddle-tree, and it is only by giving due attention to this matter that one is able to get at the bottom of the cause, which, if thus produced, must be remedied. As a protection against saddle-gall, two plans can be adopted, one of which comprises the use of a numnah or saddle-pad, and the other plan consists of leaving the

saddle on until such time as the skin beneath it has had time to cool. There is nothing worse than the removal of the saddle immediately a hunter comes in from work, and every practical horseman knows, or ought to know, the inadvisability of so doing. Poor condition is a predisposing factor in the production of saddle-gall, but there are various other causes. The term "sitfast" is applied to an old saddle-gall or bruised area of the skin that refuses to be cast off as a slough, remaining, until excised by surgical means, as a necrotic piece of tissue, encircled by healthy skin. Cessation from work, and the daily application of the lead lotion, as recommended under the heading of "nettle-rash," will be found as useful as any treatment that can be adopted for sore back and saddle-galls.

ERYTHEMA

The term erythema is applied to a superficial congestion of the skin, of which saddle-gall and cracked heels may be taken as typical examples. The former having already been dealt with, it is necessary to refer to that common trouble known as

CRACKED HEELS

Hunters are frequently troubled with this form of skin congestion, which is confined to the hollow of the heel, and mostly affects the hind limbs. It is a particularly troublesome complaint in the winter time, more especially when a thaw sets in, though there is no specified time of the year as to its production, the main point being over-heated skin, followed by cold air playing upon it, and this is precisely what happens as the causative agent in nearly every case of cracked heels. Whenever hunters in a stud are troubled in this manner, it will be traceable to washing the legs, and then not drying them properly. This, superadded to which there will probably be a draught beneath the stable door, is a commonly assignable cause, therefore, remediable. Cracked heels are generally very troublesome, more especially if neglected, in fact, some horses will go quite lame through the pain induced by the stretching of the skin. A plan of treatment that is commonly adopted, though quite an erroneous one, is the application of astringent remedies, which only

serve to increase rather than decrease the trouble. As previously stated, prevention is better than cure, but when it becomes expedient to resort to the latter, one of the most useful applications will be found in one part of glycerine in combination with an eighth part of oil of eucalyptus. This liniment should be smeared upon the sore skin every night. Another excellent application is hazeline, either in the form of hazeline snow or in conjunction with glycerine, equal parts of each being used in the same manner as the foregoing. When cracked heels are very much inflamed and deep fissures pervade the skin, it is judicious treatment to apply a soothing poultice, such as hot linseed meal or some other equivalent application. As a preventative of cracked heels, the mud should be allowed to dry on, and brushed off afterwards.

ECZEMA

Eczematous eruptions occasionally occur in hunters, and when they do, such may appear upon any part of their body. The preliminary

stage is denoted by erythema or congestion of the skin, followed by the appearance of vesicles or small blisters scattered over a variable extent of the skin, though not confined to any particular region. It may be of an acute, or chronic nature, but it is always accompanied by a considerable amount of irritation, which represents a similar irritable condition of certain internal organs, principally of the digestive tract, though sometimes of the kidneys, liver, generative organs, &c. Non-parasitic forms of eczema are nearly always of constitutional origin, and it is only by the application of internal medicaments, combined with topical applications, that successful results can be anticipated.

Oleate of zinc ointment, boracic acid ointment, tar ointment, and dusting powders, such as starch, are generally used as local remedies. Much will depend on circumstances as to whether the eruption is dry or moist.

CHAPTER XVIII

SOME DISEASES AFFECTING BONES JOINTS, TENDONS, AND LIGAMENTS

INTRODUCTION. The hunter in virtue of its work is particularly exposed to a multiplicity of accidents and injuries, that are less liable to occur in other horses. Jumping entails a considerable degree of muscular exertion, so that both muscles, tendons, ligaments, and joints have to withstand a great deal of strain. Apart from the energy required, the hunter is exposed to bangs and blows against fences, stone walls, and other obstacles which it is necessary to negotiate in the chase. Moreover, sprains are frequent, more especially when the ground is hard and uneven. Defective conformation and youth must be looked upon as predisposing factors in the development of disease in con-

nection with the limbs. A question that may arise in the mind of the reader is one relating to the occurrence of disease in both fore and hind limbs, as to whether such troubles are more frequent in the fore than in the hind limbs. The author, in answering this question, believes that such are about equally divided, although the degree of concussion is necessarily greater in the fore than in the hind limbs. It may be accepted as a truism that nearly all diseases in which bone is implicated are of a permanent nature, in fact the development of new bone at the seat of injury constitutes nature's method of repairing the part, conferring additional strength upon a structure that has been weakened through injury. To this rule there are certain exceptions, which will be alluded to under the proper place. The mere possession of a blemish, or some other unimportant trouble, does not necessarily constitute unsoundness, neither may it interfere with the animal's utility. If one were to reject such horses, the probabilities are that some of the most useful hunters in the country would be laid aside.

SPLINT

This is one of the commonest troubles met with in the fore limbs of light horses, although not confined to the latter. Hunters are very subject to splint, which is particularly liable to develop before they reach four years of age, though there is no age-limit as regards the production of splint. It is such a common disease, that if one had to reject every horse with splint, the proportion of sound horses would become very small. The reason why splint is so common in the fore limbs is because of the greater degree of concussion to which these are exposed. Almost every horseman is familiar with the situation in which splint appears, namely, the back or side of the cannon bone, commonly at the upper third of the last named, though not confined to such situation. It may be that the splinty deposit is close under the knee; or towards the lower end of the cannon bone, whereas in other instances it is situated on the front of the cannon bone. When close to the knee, it is customary to regard its position as being a bad one, and

veterinary surgeons usually reject hunters when they detect splint in that situation, because it commonly happens that a splint thus placed gives rise to an intractable lameness, and many obscure lamenesses are in all probability thus caused. Splint may be divided into simple and compound forms: in the former there is only a single deposit of new bone, whereas in the latter there may be numerous new growths of variable size and configuration, connected or disconnected, nevertheless, all discoverable by external manipulation. A considerable degree of discrimination is necessary when contemplating the purchase of a hunter with splint, chiefly because it is a difficult matter to prognosticate as to whether the trouble will be likely to interfere with the animal's utility.

The age of the animal and the absence of lameness, coupled with the position that the splint occupies, constitute the most reliable evidence that one can obtain. If the horse has turned its fourth year, and the splint is in a good position, the prognosis is generally favourable as to the hunter continuing sound. The size of the splint must not be taken as a

guide, because many large splints are perfectly harmless, whilst a minute one sometimes acts diametrically opposite. The deposit of new bone represents the legacy of the preceding inflammation at the seat of injury, and is thrown out by the covering of the bone—the periosteum. It is quite possible that repeated injuries to the latter act as a cause of multiple splint, or it may be that the latter has been laid down at one and the same time. Here it may be as well to mention a somewhat remarkable feature about splint, viz., its occasional spontaneous disappearance. The chief causes of this trouble appear to be hereditary predisposition, concussion, unequal distribution of pressure, and external injuries arising from other causes. The question is which of these factors is the most important, and to this no definite answer can be given. Probably concussion stands first as the cause of this trouble. In the majority of instances, splint lameness is concurrent with active inflammation at the seat of the injury, though it is not necessarily confined to that period. It varies in its severity and duration, and is not characterised by any peculiarity of such

lameness. Like most other forms of lameness in the horse, it is most manifest when the animal is trotted on hard ground, exhibiting no tendency to disappear as the exercise or work increases. It is impossible to lay down any fixed time for the formation of splint, but it is tolerably certain that such deposition could not occur in a period less than eight or ten days, therefore if a newly purchased hunter proves to have splint on its arrival home, such must have been in existence at the time of purchase. A good deal of litigation has frequently arisen in relation to splint, and the liability of veterinary surgeons has on many occasions been tested as to the passing of a horse for soundness, which, the purchaser has subsequently discovered, had splint at the time of such examination. If sufficient precaution were exercised to discriminate the difference between the fulfilment of a legal obligation and a moral one, very little trouble would ever arise. Legally considered, every horse with splint, no matter in what form, or under what conditions, must be regarded as unsound. Speaking in a practical manner, a horse having splint may be just as useful as one without it,

nevertheless, not being a normal condition, the one is a sound horse and the other not.

SPRAIN OF THE FLEXOR TENDONS

Sprains or strains of the flexor tendons in both the fore and hind limbs are exceedingly common in hunters, and when such do occur, it necessitates a variable period of rest, may be a few days or a few weeks, much depending on the severity of the sprain and the reparative power of the tendons. As a rule a sprain occurs between the knee and the fetlock, or between the point of the hock and fetlock. Lameness, increased heat, swelling, and pain on manipulation may be accepted as the cardinal signs of both tendinous and ligamentous strain. When a sprain has been in existence for any length of time, or the injuries have been of a recurrent nature, there is a distinct tendency on the part of the injured ligament, or tendon, to become thicker and shorter, than when in its normal condition. Rest is the principal factor when dealing with injuries of this kind, and for the first twenty-

four hours, cooling applications are indicated, after this period, warm fomentations and stimulating liniments. In chronic sprains, blister.

BANGED, BROKEN, AND BLEMISHED KNEES

The first and last named condition included under the above heading are very frequent injuries amongst hunters, for reasons at once obvious. In looking at a hunter's knees, a veterinary surgeon does not pay much attention to superficial injuries or blemishes, but he is more immediately concerned with the degree of action existing at the knee joint, the freedom of which is indispensable in a hunter. Any tendency towards stiffness is sufficient to condemn a horse of this class. One or both knees may have the skin thickened, and the underlying structures in a similar condition, if so, this acts as an impediment to the free flexion of the joint. Repeated banging of the knees is the chief cause of the condition just alluded to. A blemish may be slight or severe, but it is not necessarily confined to the knees. A

broken knee varies in its intensity from that of a mere superficial abrasion to one laying open the joint and, it may be, injuring the bones of the knee. The severity or otherwise of the injury is usually dependent upon the condition of the ground upon which the animal falls. Repeated bruising of the knee sets up a chronic form of inflammation, and this in its turn leads to permanent enlargement of the whole knee, with its attendant degree of stiffness. Bruised or banged knees should, if the injury is a recent one, be treated with some lotion such as the following:

Methylated spirit of wine	4 ounces
Tincture of arnica	1 ounce
Camphor	½ ounce
Water	½ pint

Dissolve the camphor in the spirit, then add the arnica, and lastly the water. This lotion should be applied four or five times a day, by soaking a square of cotton wool in it, and fastening on to the sprained part with a flannel bandage. There is a dry method of treating sprains, which comprises accurately adjusted

pressure. Such can be obtained by taking a bandage and cotton wool. Let us suppose that it is one of the back tendons that is sprained: take rolls of cotton wool, and pack the hollows of the inner and outer side of the leg, so that when the bandage is applied, the tendons will be equally supported by the bandage at the front, back and sides of the limb. Careful adjustment of the bandage is necessary, but it must not be applied too tightly, otherwise the circulation of this part is retarded.

CAPPED HOCK

The term capped hock is a tolerably expressive one, implying as it does an enlargement at the point of the hock, such enlargement varying in size in accordance with the causes operative, or that have been operative with its production. Clinically considered, capped hock is divisible into several varieties, ranging from mere thickening of the skin to involvement of deeper parts, such as the subcutaneous tissue, bursa, and subjacent structures; moreover, such swelling may be accompanied by

increased heat, in short by acute inflammation at the point of the hock. If in the condition last named, the chances are that the animal has recently struck the point of the hock;—an accident that occasionally happens during transit by train, steamboat, &c. Active inflammation at the point of the hock, or hocks, may be accepted as the best positive evidence that the injury has recently been done. In about 90 per cent. of instances capped hock is the result of direct and continual irritation over a variable period of time. It is an injury that is commonly produced in the stable, by rubbing the hocks, or knocking them against the stall-posts, likewise occasioned by kicking in harness, and during lying and rising. Capped hocks in a hunter are very unsightly, but whether one is justified or not in considering an animal thus affected as unsound, is by many regarded as a debatable point. Being a departure from the normal, it would be necessary in order to satisfy the legal obligation to reject an animal thus affected, no matter how slightly the defect may be in evidence. It is there, and that is sufficient.

CURB

The position of this—curb—is a few inches below the point of the hock, and lying in a straight line with the latter. No matter how small a curb may be, by viewing it in profile it will easily be seen. One or both hocks may be affected with curb, though such are not always the same, as regards the size of the curb. The development of curb is frequently associated with defective hock conformation, in other words, the so-called curby, overbent, or sickle-shaped hocks, are regarded, by many, as predisposed to become affected in this manner. This view is not entertained by all veterinary surgeons, but the author strongly believes that hocks thus constructed are more *liable* to become curby than those that are of good conformation. It is seldom that curb leads to lameness, and when it does so, it is mainly during its formative stage. It is, however, customary for veterinary surgeons to reject horses having curb, no matter how small such may be. Its significance, in a hunter, is necessarily greater than that in a harness horse, and

if the hocks are not of good conformation the writer would not recommend the purchase of such a horse. Regarding the causes of curb, it may be inferred that it is commonly the result of a sprain, of either the ligamentous, or tendinous, structures at the back of the hock. Rest, blistering, firing, or a combination of these methods, constitute the usual treatment for curb. Concerning heredity in the production of curb, this can only be explicable on the ground of the conformation of the hock, as previously described.

THORO-PIN

Thoro-pin or "thro'pin," as the name implies, is a swelling that can be pressed through, or from one side to the other, and is situated at the upper and back part of the hock, just at the junction of the second thigh with the latter. Lying immediately above the point of the hock, and on either side of it, are depressions, which if the seat of thoro-pin, can by pressure, either at the inner or

outer side, be made to bulge, such bulging constituting thoro-pin. Although customary to regard such as constituting unsoundness, it is seldom that thoro-pin causes lameness, nor yet can it be said to be much of a blemish, therefore its significance is not great. As a rule it is permanent, with a tendency to increase rather than decrease, and it is this liability, we presume, that leads some horsemen to look upon its existence with disfavour.

BONE-SPAVIN

Foremost amongst all diseases affecting the hock joint, bone-spavin stands pre-eminent, and there are very few horsemen but what profess to be able to determine the existence of this trouble, if such be present. From time immemorial, bone-spavin has been looked upon as one of those troubles which constitute a most serious detriment to a horse, though doubtless its significance has, in many instances, been over-estimated. The author has no desire to under-value the evil consequences

so frequently resulting from its presence, but many hocks have been *described as spavined* when they have been perfectly normal, and this is just where the trouble comes in, *i.e.* in the accurate determination of the existence, or non-existence of spavin in those hocks that are *normally of a coarse character.* When spavin makes its appearance it does so at the inner and lower aspect of the hock, just where the cannon joins the joint, sometimes more towards the front than at the side, if so, it occupies its worst position. Although some horsemen are able to recognise a spavined hock when they see it, it is seldom that such have any correct idea as to the nature of the disease. To begin with, the bone-spavin itself represents nature's method of strengthening a part that has received some form of injury, in other words the site of the spavin has been, or it may be still is, the area of local inflammation, and by local inflammation, we imply such as is confined to a limited area. The new deposit of bone, or the *spavin*, represents the legacy of this inflammation, and, with few exceptions, the condition is permanent. The re-absorption

of the spavin is not unknown, but as previously stated, quite exceptional, so far as the writer is aware. Hunters are no more subject to bone-spavin than any other class of horse, but *hereditary predisposition* is regarded by most authorities as a significant factor in the development of this trouble. In all probability this theory bears some relationship, directly or otherwise, to the conformation of the hocks. There is a type of hock which appears to be more prone to develop spavin than others differently constructed. I now refer to the so-called "tied-in" hock, or one that is narrow at the head of the cannon bone. The reason of this is explicable, on the ground, that the column of support at this part is diminished in area, consequently, the reception of injury, such as that resulting from concussion, is deficient in compensatory power. One or both hocks may be spavined, but if both are affected and there is very little difference in the size, then it becomes a difficult matter to determine the existence, or otherwise of spavin. The size of the latter is no criterion as to the pernicious influences that it will exercise, either at

the present, or at any future time. Sometimes very large spavins never produce the slightest lameness, whereas a small one commonly gives rise to most persistent lameness. Perfect freedom of hock action is a sine quâ non in a hunter, consequently, it is impossible to insist too strongly upon the soundness of the hocks (see chapter on conformation). A hock may be spavined and yet there be no visible manifestation of it, beyond lameness which seems to proceed from this region. Such cases are spoken of as "occult" spavin. The inflammatory action in these instances is confined to the interstices of the small bones of the hock, and the superficial deposition of new bony tissue is not detectable either by sense of sight or by touch. The most that can be said is, that the lameness is obscure, and any opinion as to its induction from such cause purely hypothetical. Young hunters are more prone to develop this trouble than those that are mature, and lameness in such is a frequent occurrence, though not necessarily confined to the formative stage of the disease. It is a common observation that many instances of spavin lameness are recurrent, though such

"CYLLENE," SIRE OF "MINORU"

recurrence occurs at variable intervals of time. In order to detect the existence of bone-spavin the best plan is to compare the hocks by sense of touch, using the fingers of the same hand for that purpose. The slightest inequality can easily be detected in this manner.

BURSAL ENLARGEMENTS

In connection with joints, tendons, &c., there are certain structures known as bursæ and tendon sheaths, which serve the purpose of lubricating the parts for the play of the tendons and the joints. They sometimes become over-filled as the result of some form of irritation, and when such does occur, there is a soft, elastic swelling which makes its appearance just above the joint, giving the part a puffy feel, as though the distended part were filled with air. Hunters that have done a lot of work, or been prematurely worked, not uncommonly develop these bursal enlargements, and there may be several of them, especially about the fetlock,

hock, knee, &c. They are extremely unsightly and when situated at the fetlock, they are popularly known amongst horsemen as "wind-galls." Such enlargements are blemishes, and may amount to unsoundness, in fact do so if they interfere with the action of the joint.

CHAPTER XIX

DISEASES AFFECTING THE FEET

There is no exemption of the hunter as regards the diseases affecting the feet so common amongst other horses, though it is a noteworthy fact, that the conditions under which hunters are kept, seem to be more favourable than in the case of some other horses. Moreover, most of the hunter's work is confined to soft ground, so that the effect of concussion is less likely to exercise its pernicious influence in this particular variety of horse. Unless a hunter has sound feet, it will never be of a great deal of use. Bad shoeing is responsible for many troubles of the feet, as most horsemen are well aware, whilst negligence on the part of the groom, in some instances, plays a similar part. There are some diseases which are permanent, others of but a temporary nature, though

most foot troubles, accompanied by an alteration of structure, are of an incurable nature. The hoof-wall, the coronet, the sole, the foot-pad, or any other portion of the insensitive foot, are liable to be implicated, while the sensitive or internal structures of the foot are frequently the seat of trouble.

SANDCRACK

A sandcrack consists of a split in the wall of the hoof, beginning at the coronet, and extending downwards, sometimes throughout the whole length of the wall. It must not be confused with cracks beginning on the ground surface of the wall, so commonly observed in colts when the feet become overgrown. As the hoof-wall is thinnest on the inner side, sandcrack generally makes its appearance in this situation, in the fore-feet, but in the hind ones, it is usually found at the toe. It is less significant in the last named. The fissure may be confined to the outer surface of the hoof, or extend throughout its thickness, which it does in advanced cases. It is due to an imperfect secretion of the horny

fibres entering into the formation of the hoof-wall, and it is quite a tangible theory, that sand-crack might be developed suddenly, though as a rule it is of gradual occurrence. Over-dryness of the hoof-wall, and false-quarter, predispose to sandcrack. The only methods of dealing with this trouble are, to prevent lameness by clasping the crack, and subsequently endeavouring to promote a new growth of horn from the coronet. Sometimes a blister around the last named will attain this object, but it is a very good plan to turn the animal out to graze on marshy land, as this favours a healthier condition of the horn.

THRUSH

This is a common disease, and may affect one, or the whole of the feet, but the hind ones are the most susceptible to this trouble. Frequently it may be taken as evidence of negligence on the part of the groom through failure to pick the feet out twice a day at least. It arises through the irritation induced by decomposing organic matter, lodging in the cleft of the

frog, followed by suppuration and a most offensive odour. When the stable floor is uneven, or the drainage bad, this troublesome complaint is likely to exist. Cleanliness is one of the first essentials in treatment, and the removal of the cause of primary importance. The cleft of the frog having been cleansed with some antiseptic solution, the next step is to dress it with a solution of chloride of zinc in methylated spirit, twenty grains of the former being dissolved in two ounces of the latter. Soak a pledget of tow in the dressing and pack the cleft of the frog with it. Another useful powder for the same purpose is, one ounce of powdered boracic acid and half a drachm each of powdered iodoform and of calomel, to be well mixed together and applied in a similar manner.

FALSE-QUARTER

This abnormal condition of the hoof-wall manifests itself in the form of a depression or furrow, extending in a vertical direction from above to below. It is the outcome of imperfect

secretion of horn, and as the wall is thinner in consequence, it predisposes to the development of sandcrack, therefore, is regarded as sufficient cause for rejection during examination as to soundness.

CONTRACTED HEEL

When an organ or tissue ceases to perform its functions, either temporarily or permanently, partially or completely, it decreases in volume, in other words contracts, and this is precisely what happens to a horse's foot when the functional power of the limb has been diminished, as in most cases of lameness. In some instances contracted heel is the result of lameness. One or both heels may be contracted, whilst the degree of contraction varies. The hoof becomes narrowed at the heels, whereas in reality it ought to be well opened in that situation. Mention ought to have been made of a rather frequent cause of contraction of the heel, namely, that of paring away the foot-pad or frog, the full development of which is one of the best safeguards against contracted heels. Once this

condition is established, it exercises a pernicious influence upon the soft structures within the foot. The only method of restoring the foot to its normal condition is by paying attention to, and the removal of, if possible, the cause.

CALCIFIED LATERAL CARTILAGES (SIDE-BONE)

It is with a certain amount of diffidence that the writer has been constrained to refer to this condition in a book on the hunter; nevertheless, it is quite possible that some readers would regard the omission of reference to side-bone as unpardonable.

Side-bone occasionally affects hunters' feet, and, as in the case of other light horses, is exceedingly detrimental. In this trouble, it is the lateral cartilages of one or both feet that are implicated. In their normal condition the lateral cartilages are flexible plates attached to the wings of the pedal bone, conferring upon the upper border of the hoof an elastic backward extension, so as to facilitate the soft structures on the inner side of the cartilages, freedom of

expansion. When the cartilages are calcified (side-bone), they lose their elasticity and adaptation to the expansion of the soft structures previously referred to, consequently are a frequent cause of lameness. There is a lateral cartilage on the inner and outer side of each foot, and either or both are subject to the disease change alluded to.

BRITTLE HOOF

Sometimes the hoof becomes exceedingly brittle owing to its dryness, which is particularly liable to occur if a hunter is kept upon a dry, sandy soil, or in a hot climate, where the soil is of a similar nature. A foot in this condition is always a source of trouble, and renders shoeing particularly difficult, moreover, it predisposes to other troubles. To remedy this defect, greasy applications applied to the hoof daily are useful, by checking the loss of water from the horn. The frequent application of cold water to the feet acts in a similar manner. The best remedy is, of course, to graze the animal on marshy land.

CORNS

The hunter is an occasional sufferer from "corn," which consists of a bruise to the sensitive structures beneath the horny sole. The inner quarter of the sole, on one or both fore feet, is the usual situation for corn to make its appearance. Faulty shoeing predisposes to this injury. Sometimes the part festers. Lameness is usually present. Remove shoe and pare the sole.

PUNCTURE OF THE FOOT

This is an injury that occasionally occurs at the shoeing forge, but considering the large number of horses shod, it is exceptional rather than otherwise. In some instances, the injury is the result of carelessness, in others, unavoidable, either through thinness of the hoof-wall, separation of the latter, or else restlessness of the animal during the time that the nails are being driven. Injuries by "picked up nail" are of rather frequent occurrence, and many serious results have followed accidents of this kind. The direction of the wound inflicted by a picked

up nail varies, so does the damage done by it. When the injury is not discovered until some time after it happens, the more likelihood of the trouble assuming a bad form. Suppuration is frequent, and unless this is given free exit, it will often break out at the coronet, and in this manner constitute a diseased condition known as quittor, which is, as a rule, a very intractable disease. An interesting feature in connection with picked up nail is the manner in which the nail penetrates the foot, as it usually manages to pass in at the side of the foot-pad, just where it will be likely to do the most injury. In all instances of lameness, the foot should first of all be thoroughly searched, the shoe being removed beforehand. Each nail hole must be pared, and the wall and sole pressed with the pincers, for evidence of tenderness, or suppuration beneath. If the seat of trouble be found here, or at the foot-pad, the part must be pared out, and the foot put into a pail of hot water, and subsequently a hot poultice applied. As in every other instance of lameness, rest constitutes the essential part of treatment.

NAVICULAR ARTHRITIS

This is an incurable disease implicating the navicular bone, the bursa, the cartilage covering the bone, and the tendon playing over it, any of which, or the whole, are liable to participate in this disease. It is not anything like so common in hunters as in horses of the lighter kind working on hard roads. One, or both fore-feet may be affected, and the lameness indicative of this trouble is characterised by pointing of the foot, the toe being brought to the ground first, so that the shoe usually becomes excessively worn at this point. In addition to this, the step is very short, in fact the short cat-like action in front is very significant of this affection. The lameness is particularly marked when the animal comes out of the stable, but passes off as it warms to its work. The foot is usually contracted at the heel, in addition to which, there are other signs, all more or less significant to the veterinarian, but not of much value to the layman. A hunter having a trouble of this kind is, needless to say, of no commercial

value, but the lameness can often be obscured by operation—neurectomy, *i.e.* excision of a portion of the nerves supplying the foot with sensation. The relief from lameness does not in any way minimise the disease, and the most that it can do is to enable the owner to work the animal for a year or two longer, but a hunter that has been unnerved most certainly is not, in the author's opinion, a reliable animal for any man to use who values his own life.

LAMINITIS OR FOUNDER (FEVER IN THE FEET)

This affection is, unfortunately, of rather frequent occurrence, the hunter not being an exception to the rule. It assumes both acute and sub-acute forms, both of which are equally detrimental. Laminitis, as the name implies, consists of congestion or inflammation of the *sensitive laminæ*, or leaf-like structures clothing the pedal bone, within the hoof, the said laminæ being dovetailed into corresponding horny, or *insensitive laminæ*, upon the inner face of the hoof. Under normal condi-

tions, the bond of union between these two structures is a very firm one, in fact, such a one that it supports the weight of the horse almost entirely. In its acute form, laminitis is one of the most painful affections that a horse can suffer from, the reason of this being due to the non-yielding structure enclosing the part inflamed, consequently, not permitting of relief through swelling, &c. *Sub-acute* founder is not accompanied by any appreciable degree of febrile disturbance, nevertheless the animal is lame and the attack may at any time assume the *acute* form. One attack predisposes to another, so that if a hunter has once had this affection, it is particularly liable to have it again. Brood mares sometimes suffer from it after foaling, the disease being in this case due to absorption of *septic* products from the generative passage. This is a most troublesome form of the malady, and one that calls for immediate professional skill. A metastatic form of laminitis is sometimes observed in hunters following hounds, and when out of condition, the change of congestion being transferred, in all probability, from

engorgement of the lungs, to congestion of the feet. A variety of causes are liable to be operative in the production of laminitis, some being of a dietetic nature, others the result of concussion. Both fore, both hind, or all the feet, may be implicated, but commonly it is the fore feet, if so, the animal endeavours to place them as far forward as possible, in order to relieve the feet from the weight of the body. If the hind ones are the seat of trouble, these are placed forward also with the same object. The pulse is quick and full, the membranes of the eyes reddened, and sometimes the eyelids are swollen. Internal temperature is commonly 105 or 106 degrees Fahr., the breathing quick and laboured, more especially when the animal attempts to move, which it seldom does except by force. To an ordinary observer it looks as though the horse is riveted to the ground, and afraid to move, which it really is owing to the pain induced. Sweating, thirst, throbbing of the arteries above the foot, increased heat of the feet, along with variable other signs, are the principal features illustrative of this painful malady, the results of which are, frequently,

of a very unsatisfactory nature. In its duration, it varies according to its severity or otherwise, and to the treatment that has been adopted. This must be left in the hands of the veterinary surgeon, but in the meantime, the shoes may be removed, and the feet placed in either hot or cold bran poultices. If a horse can be encouraged to lie down when suffering from laminitis, the author considers it advantageous, but the feet must be kept well wetted, and this usually necessitates a great deal of attention in other ways. The displacement of the pedal bone is most to be dreaded, and results from separation of the bond of union between the two laminæ, as previously referred to.

CHAPTER XX

FRACTURES AND WOUNDS

In virtue of the work the hunter has to perform, it is, so to speak, predisposed to both fractures and wounds, more especially the latter, which are commonly of the "staked" variety, and it is just this class of wound that so often proves dangerous. The two conditions may be associated; if so, the gravity of the injury is relatively greater. An injury of this kind is spoken of as a compound fracture, whereas, when a bone is merely broken without any such wound, it is called a simple fracture, which may be either "transverse, oblique, or longitudinal." In a transverse fracture, the bones may be broken across, the other terms being sufficiently explanatory. In the horse, oblique fractures are the commonest, and like other fractures may or may not be accompanied by "displacement,"

though usually of the former character. What is termed a "deferred" fracture, is one in which the displacement occurs at a subsequent date to the fracture, but it is not a common form of injury in the horse. Comminuted fractures are those in which the bone is broken into a number of fragments, an injury that occasionally occurs to hunters through severe concussion, the bone involved being the pastern—commonly known as "split pastern." Sometimes fracture of this bone is an "oblique" one, more rarely "transverse." The heavy falls which hunters so frequently experience occasionally lead to a fracture of either the cervical vertebræ, or some other portion of the vertebral column, and injuries of this kind usually prove fatal at the time, or else necessitate destruction. It may be accepted as true in a general sense, to which there are certain exceptions, that most of the fractures incidental to hunters and other horses are not satisfactory to treat, due to a large extent to the unfavourable conditions in relation to keeping the parts in a state of rest; in fact, to do so is often an impossibility. Moreover, the absence of flesh (muscle) below

the knees and hocks materially adds to this difficulty.

Superadded to this, there seems to be not a great deal of reparative power in connection with the bones of the horse; much less so, so far as the author's experience goes, than in cattle. What may be termed the cardinal signs of fracture are: lameness, crepitation, pain on manipulation, and swelling, any of which, or all, may be absent, excepting perhaps lameness. The most significant sign of a fracture is, of course, crepitation, but in the majority of instances it is a difficult matter to detect this in a horse, as every practical veterinarian is aware. This is due, in a large measure, to the mass of muscular tissue clothing some of the bones, or else to the sheltered position of such bones. A typical example of an injury of this class is afforded by the bones enclosed within the hoof. In the situation last named, fractures occasionally occur, but the diagnosis is necessarily of a speculative nature. Even in split pastern, the same trouble often confronts one, and yet the bone occupies a very superficial position. Injuries to the pelvic

girdle are not uncommon, but there is the same difficulty experienced in diagnosis. No matter of whatever nature the fracture, *rest* constitutes the most important feature of treatment, and the more completely this is secured, the better, though it is easier to advise, than to carry out this part of the treatment. As a rule, such rest is obtained through the use of the slings, though the latter are inapplicable in many instances. The fracture must be maintained in apposition by means of some artificial support, such as a starch or plaster of Paris bandage, or other adhesive material, applied after the fracture has been reduced, and the swelling allowed to subside, the latter being facilitated by fomentation with warm water. The reparative power is greater in the young than in the old, but most cases of fracture necessitate about three months' rest, at the end of which time, if applicable, it is a good plan to apply a good strong blister to the injured part. Fractures of the first and second thigh, of the cannon, of the knee and the hock, of the pedal bone, navicular bone, and of the arm, usually call for immediate destruction of the animal, whereas, fractures connected with other

regions of the skeleton must be dealt with according to circumstances. As a summary of the causes operative in producing fractures, mention must be made of concussion, violent muscular contraction, and *direct external* violence.

Reference has already been made to punctured or staked wounds, and as these are common in hunters, it is necessary to know what to do for such injuries. First of all, the wound should be carefully explored, in order to ascertain its direction and extent, likewise to find out whether there is any foreign body lodged in it; if so, the latter must be removed immediately, otherwise, it may lead to most serious results. It is not considered good surgery to begin probing a wound unless this is done with great care and under antiseptic conditions. After the wound has been carefully explored, it should be irrigated with some antiseptic solution such as the following:

Pure carbolic acid	½ ounce
Glycerine	2 ounces
Tepid water	1 pint

Wash the wound out night and morning with a

syringe, and keep it open by the insertion of a pledget of carbolic tow, removing the latter each time the wound is dressed. Other antiseptics that can be used for the same purpose are Pearson's disinfectant, chinosol, permanganate of potash, creolin, boracic acid, &c. It commonly happens that staked wounds are about the breast, or inner side of the arm: consequently, when the animal comes into the stable it will be found that a great deal of air has been sucked in beneath the skin, thus making the injury look of a very formidable nature. With rest, the air gradually disappears. The evil results to be feared from a punctured wound are: mortification, tetanus, and injury to organs contained within the chest, or the belly.

In passing, it may be as well to note that punctured wounds, in connection with the feet, are always of a serious nature, being usually followed by suppuration, and occasionally by tetanus or lockjaw, but this matter is referred to in the chapter dealing with the feet. Superficial wounds, *i.e.* those in which the skin only is torn, can be treated by bringing the torn edges together with a needle and some suture thread, such as

silk cord, metallic wire, cat-gut, boiled string, horse-hair, or any other suitable material. The wound should be well washed with either hot or cold water, or alternately with both, which will help to arrest the bleeding, and also reduce the swelling. Each stitch must be taken separately, and then tied off, but before sewing up the wound, clip the hair away, as this only serves to aggravate the injury. One precaution is necessary—that is, not to draw the stitches too tightly, otherwise subsequent swelling will probably tear them out. There are various surgical methods of treating wounds, but they are all based upon one common principle, which is that of saving as much of the injured tissue as possible, and to maintain the wound in a vigorous and healthy condition from start to finish. As a simple dusting powder, having antiseptic properties, there is nothing more useful than the following:

Powdered boracic acid	1 ounce
Powdered cinchona bark	½ ounce
Iodoform	40 grains
Powdered starch	2 ounces
Oil of eucalyptus	1 drachm

Mix thoroughly, and dust the wound freely with the powder two or three times a day.

Wounds in the neighbourhood of joints, or such in direct connection with the joint, often set up acute inflammation of the joint; therefore all such injuries call for professional aid, and the sooner this is obtained the better.

CHAPTER XXI

THE HUNTER'S DISPENSATORIUM

ALTHOUGH not an advocate for the home doctoring of animals, as such very often leads to disastrous results, the author, nevertheless, deems it expedient to give a few recipes, or what may be termed first aid remedies, to meet the exigencies of circumstances. Few hunting localities are without the aid of professional assistance, and whenever possible such aid should be sought, being the most economical, as well as the most satisfactory in the end. Every hunting establishment should keep a supply of the remedies prescribed by the veterinary surgeon belonging to the hunt, or whatever veterinary surgeon is in attendance. To purchase quack remedies is a stupid and useless procedure, as their administration may be contra-indicated, though the vendors of such nostrums generally manage to

shelter themselves under a large variety of diseases included within the cure, as per the "label" only. One matter against which it is necessary to issue a word of warning, chiefly to grooms, is in connection with the use (abuse) of drugs, such as arsenic, oil of vitriol, antimony, and saltpetre, &c., all of which are capable of exercising deadly effects, either directly or indirectly. It is an excellent plan to have the following articles in charge of the stud groom to be used at his discretion or as circumstances arise :

1 dozen 3-in. absorbent linen bandages
½ lb. boracic lint
4-lb. tin of mustard
½ lb. powdered boracic acid
1 dozen 5-drachm physic balls
2 lb. vaseline
½ dozen colic draughts
1 gallon disinfectant fluid
1 quart bottle white oil
2 clinical thermometers
1 stone of linseed meal
3 yards cotton wool
1 lb. powdered starch
2 lb. Epsom salts
4 oz. Friar's balsam

2 quarts of linseed oil
4 oz. pure carbolic acid
½ lb. glycerine
1 pint of methylated spirit
1 lb. blistering ointment
1 pint bottle antiseptic
1 wound syringe
1 quart bottle lotion for sore backs.

The foregoing, in addition to a pair of dressing scissors, some suture needles, and suture thread, are the principal items requisite, though others can be added from time to time; but, as previously stated, it is not advisable for the amateur to acquire a stock of drugs and begin dabbling in the treatment of that in which a little knowledge may become a dangerous thing.

WOUND LINIMENT

Oil of eucalyptus	2 ounces
Olive oil	1 pint

Mix, and apply to wound two or three times a day.

HOOF OINTMENT

Russian tallow	4 lb.
Archangel tar	½ lb.
Beeswax	3 ounces

Melt, and stir till cold.

EYE LOTION

Hyposulphite of soda	2 drachms
Water	½ pint

Apply to eyes several times a day.

TONIC POWDERS

Powdered cinchona bark	6 ounces
Powdered sulphate of iron	1 ounce

Mix thoroughly, and divide into twelve powders. Give one night and morning in damp corn.

ANODYNE DRAUGHT TO EASE PAIN

Chlorodyne	1 ounce
Water	1 pint

Give at once to a hunter in pain, and repeat in two hours if necessary.

THE HUNTER'S CORDIAL OR PICK-ME-UP

Rectified spirits of wine	4 ounces
Gin	4 ounces
Powdered ginger	½ ounce
Claret	½-bottle

The whole to be shaken together and given at once.

LOTION FOR SADDLE-GALLS

Sugar of lead	2 drachms
Tincture of arnica	2 ounces
Water	½ pint

Apply frequently.

HEALING OINTMENT (ANTISEPTIC)

Oxide of zinc	2 drachms
Powdered iodoform	20 grains
Boracic acid ointment	4 ounces

Mix, and smear on wound twice daily.

LINIMENT FOR CRACKED HEELS

Glycerine	4 ounces
Powdered starch	½ ounce
Hazeline	½ ounce

Mix to form a cream, and smear on heels every night.

COLIC DRAUGHT

Sulphuric æther	2 ounces
Sweet spirit of nitre	½ ounce
Laudanum	½ ounce
Terebene	2 drachms
Linseed oil	½ pint

Mix, shake well together, and give the whole draught to a full-sized pony, or half the draught to a Shetland pony.

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